25 Cents

THE LUMBERMAN

Since 1889

November 1951

Vol. 78 • No. 11

SEATTLE·PORTLAND
SAN FRANCISCO·NEW ORLEANS
VANCOUVER,B.C.·NEW YORK
CHICAGO·LOS ANGELES

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The Production Journal of the Forest Industries

Get a load of this

...FOR LONG ROPE SERVICE IN FOREST AND MILL

When it's time to switch logging ropes, be ready with tough, flexible *Preformed* Yellow Strand. It's engineered to take shocks and abrasion . . . to withstand high speeds . . . to handle the increased lengths and weights required for high board-foot production. On most skidding and loading equipment—both aerial and ground systems—you'll want 6x19 *Preformed* Yellow Strand with independent wire rope core. Other B & B lines bring stout fatigue-resistance to road-building and sawmill operations. Get a load of this assistance by specifying *Preformed* Yellow Strand.

Broderick & Bascom Rope Co., St. Louis 15, Mo.

BRODERICK & BASCOM
Yellow Strand
PREFORMED WIRE ROPE

Factories: SEATTLE, St. Louis, Peoria, Houston

Branches: SEATTLE, Portland, San Francisco, Los Angeles, Houston, Chicago, New York

Distributors in All Logging Areas

ANNOUNCING!

NEW McCULLOCH 7-55 CHAIN SAW with CUSHIONED POWER*

7-55
HORSEPOWER POUNDS

• The newest, most powerful chain saw in the famous McCulloch line is now available at dealers throughout the nation.

POWER... Special, heavy-duty McCulloch gasoline engine develops *seven* horsepower, ample for biggest trees or hardest woods.

WEIGHT... Only 55 pounds complete with 20-inch blade and chain. Easy to carry *anywhere.*

*Cushioned Power—Special balancers, geared and synchronized to the crankshaft, neutralize vibration. The 7-55 is the smoothest saw you ever handled!

FEATURES... Has *all* the features you want—*Cushioned Power,** built-in chain oiler, full 360° swivel, automatic clutch, automatic-rewind starter, and many others.

PRICE
$435 and up, f.o.b. Los Angeles. Available with blades from 20 to 60 inches.

NATIONWIDE SALES AND SERVICE

McCULLOCH

World's Largest Builders of Power Chain Saws

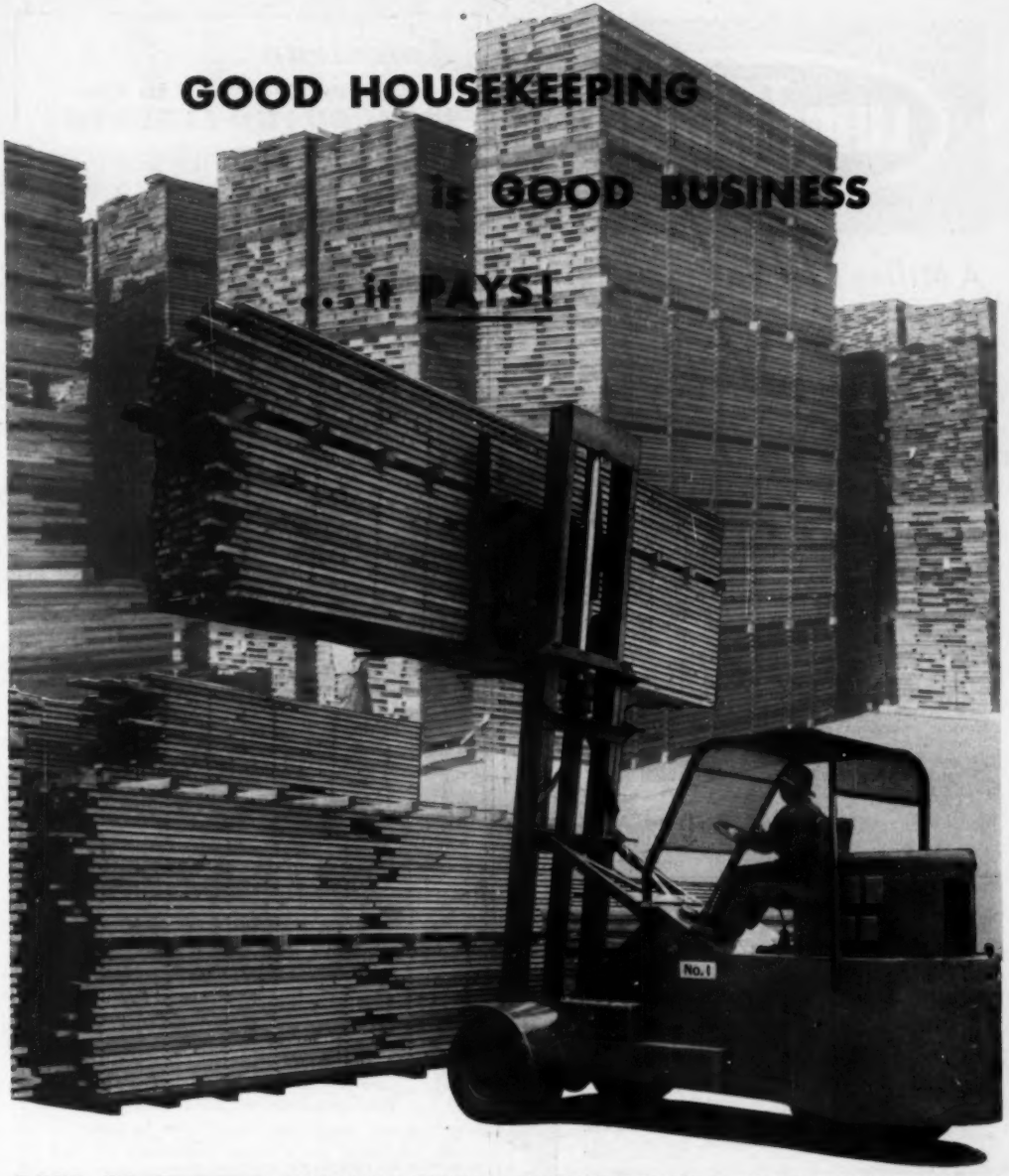
McCULLOCH MOTORS CORPORATION
Los Angeles 43, California

SEE YOUR McCULLOCH DEALER FOR A DEMONSTRATION OF *CUSHIONED POWER* IN THE 7-55!

GOOD HOUSEKEEPING

is GOOD BUSINESS

... it PAYS!



ROSS EQUIPMENT MAKES GOOD HOUSEKEEPING PAY EVEN MORE!

That's why Ross Fork Trucks and Carriers are *first choice* with lumbermen who *know*. Take a tip from them!

Rely On **ROSS**

THE ROSS CARRIER COMPANY

Direct Factory Branches and Distributors throughout the World.

THE LUMBERMAN
Since 1889

A Miller Freeman Publication

The Production Journal of the Forest Products Industries Since 1889

ABC

NOVEMBER

Vol. 78 No. 11

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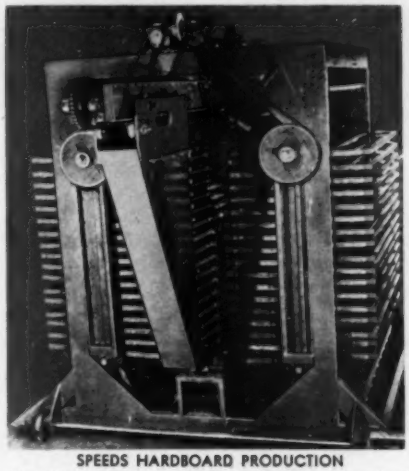
American . .

Covers The Field In The
HARDBOARD INDUSTRY



SPEEDS HARDBOARD PRODUCTION

This Self-Elevating Charger is one of many Units designed and built by AMERICAN to provide maximum Production.

AMERICAN has a corps of Engineers and Specialists constantly covering the American and Canadian Sawmill and Plywood plants. Their job is to help speed Production, evolve new ideas and improve existing equipment to meet today's pressing Economic and Production Problems.

HARDBOARD is the newest and most promising branch of the Forest Products Industry. AMERICAN has pioneered successfully in evolving many pieces of Equipment and many Production Ideas.

AMERICAN IS READY TO SERVE THE HARDBOARD INDUSTRY

THREE Hardboard plants, **each using distinctly different processes,** are now installing AMERICAN equipment. The Self-Elevating Charger, and the Self-Declining Receiving Rack, are but two units.

ECONOMICAL HARDBOARD PRODUCTION DEMANDS A MINIMUM OF LABOR HOURS. AMERICAN PRESS LOADING AND UNLOADING AND AUXILIARY EQUIPMENT IS YOUR ANSWER TO PROFITABLE PRODUCTION.

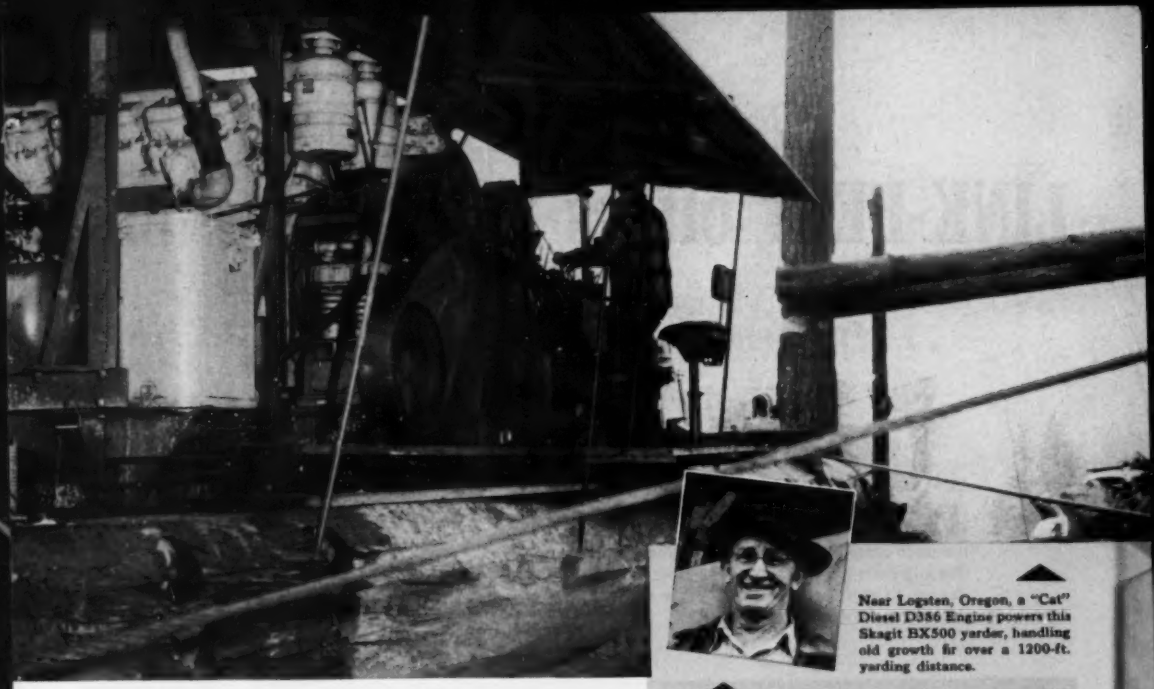
AMERICAN'S Years of Pioneering Research Brings You the BEST in HARDBOARD EQUIPMENT

American MANUFACTURING COMPANY INC.

TACOMA 2, WASHINGTON, U.S.A.

IN CANADA:
American Mfg. Co., Ltd.
R. N. Pinton, Manager
Vancouver, B. C.

IN THE SOUTH-EAST:
American Mfg. Co. Inc.
Henry H. Keenan, Manager
Greensboro, No. Carolina



Near Logsten, Oregon, a "Cat" Diesel D386 Engine powers this Skagit BX500 yarder, handling old growth fir over a 1200-ft. yarding distance.

Clint Harlan, shop foreman for C. D. Johnson Lumber Corp., says: "Our 'Cats' have given a good account of themselves for continuous performance and long, low-cost operating life."

There's a big job ahead

How your equipment takes the beating of the months ahead is important to the whole defense effort of the free world. In the United States alone, 35 billion board feet of lumber, vital to defense, are needed this year. And we're entering a period that will separate "the men from the boys" in the field of logging machinery.

Military needs and Defense Rated Orders are taking their share of "Caterpillar" production. Shortages of steel and other materials add to the difficulty of supplying the demand for new machines. This means that *present equipment must be kept in use.*

"Cat" Diesel Engines, Tractors, Motor Graders and Earthmoving Equipment are built with the stamina to serve you long and faithfully. But *how* long is up to you and the way you operate and maintain them. Good care pays off in longer wear.

You can add many hours to equipment life if you follow sound maintenance practices. Anticipate your parts needs *before* wear goes beyond repair. Talk it over with your "Caterpillar" dealer. He is qualified to give competent opinion. If a part is not readily available, he has the tools and knowledge to rebuild many worn parts — and keep your machinery on the job.

CATERPILLAR TRACTOR CO. • PEORIA, ILLINOIS, U. S. A.

You're the Doctor

Don't let your engine overheat. Maintain the cooling system, keeping it free of scale, rust and sediment. Use soft or treated water and, when freezing temperatures exist, protect your engine with anti-freeze. Clean the radiator periodically, removing foreign matter from the core by brushing or washing. Use chemical flushing solutions. Prevent engine troubles which come with overheating. Consult your Operator's Instruction Book.

CATERPILLAR

REG. U. S. PAT. OFF.

DIESEL ENGINES
TRACTORS
MOTOR GRADERS
EARTHMOVING EQUIPMENT

No ONE chain serves every purpose

LINK-BELT offers the right chain

. . . engineered for your requirements

Don't settle for a "cure-all" chain to handle every job. Different types of chain have different characteristics. That's why Link-Belt makes the most complete line of chains in the world. Our engineers can recommend the exact type of chain to fit your particular needs . . . the one that does your job best.

Equally important is your assurance that *any* chain with the Link-Belt name will give you longer chain life. Exact control of raw materials and processes . . . plus manufacturing refinements add up to the highest standards.

LINK-BELT COMPANY: *PACIFIC DIVISION:* Plants and Factory Branch Stores at San Francisco 24, Los Angeles 33, Seattle 4. Offices and Factory Branch Stores at Portland 9, Spokane 13, Oakland 7, Salt Lake City 1. 12,320-P

LINK-BELT

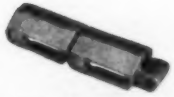
CHAINS AND SPROCKETS

Junction of grading and sorting sections at new high-speed planing mill. Lumber moves from Link-Belt H 130 chain of grading section onto Link-Belt Class H roller-top chain of sorting section.

Class H drag chain—for drag conveyors, handling sawdust or other refuse in runways or troughs.

Class H Pintle chain—excellent for conveyors that slide, used plain or with attachments.

Class SS bushed roller chain with offset sidebars—for heavy drive service at moderate speeds.



Roof-top pintle chain—for transfer conveyors, each strand presenting a sturdy, moving ridge.

Announcement

by Brainard Steel Company...

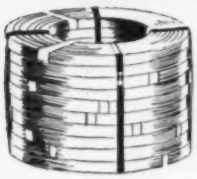
"We're here, and we mean business... for steel strapping users"

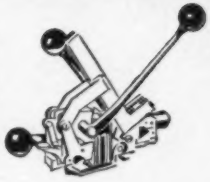
★ Harry Hughes, manager of our newly opened San Francisco office and warehouse, is now in business for *service*—with Brainard's Steel Strapping System.

The Brainard Strapping System is used for securing packages, bundles, and carloads. Brainard offers over 1,000 kinds of strapping, tools, and accessories.

Brainard representatives like Harry Hughes know the application of these items inside out. They give personal attention to your packaging and shipping problems—to speed up your materials handling, and cut your costs.

Brainard's new West Coast Office is backed up by a warehouse to permit fast service. We've grown by giving *service.* Try us—our West Coast Office is at 717 Market St., San Francisco. Phone: Yukon 2-4667.





Brainard steel strapping protects against shipping damage, loss, and pilferage, also speeds materials handling. Brainard maintains continuous quality control throughout the manufacture of strapping, from ore to finished product.

WANT FULL INFORMATION?

Brainard
STEEL COMPANY
WARREN, OHIO

Brainard Steel Company
717 Market Street
San Francisco, Calif.

Please send description and specifications of the Brainard Strapping System. I would like for (please check):

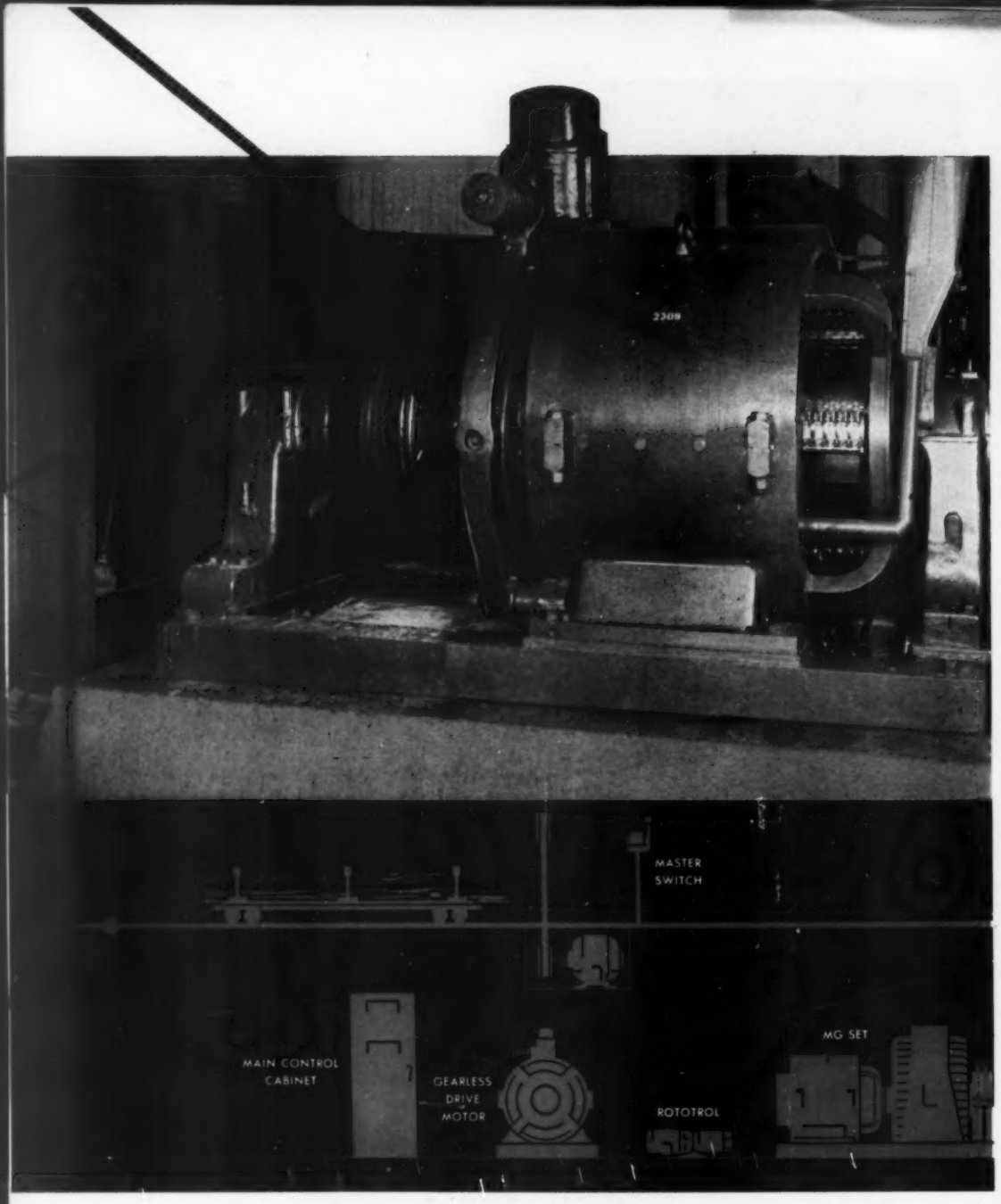
☐ Reference ☐ Immediate Planning

Your Name_____

Company_____

Address_____

City_____ State_____



HOW THE WESTINGHOUSE GEARLESS DRIVE WORKS

The drive motor is supplied d-c power by a motor-generator set located nearby. When the sawyer moves his special low-effort master switch forward, the Rototrol unit immediately forces the generator to apply tremendous accelerating power to the drive motor and the carriage darts forward.

The carriage is stopped each time by "regenerative braking" which feeds power back into the line. Limit switches prevent the carriage overrunning the track. The brakes are automatically applied if the carriage reaches the switch.

When the master switch is moved the other way, the carriage rapidly reverses. The speed reached depends on how far the sawyer moves his switch—and the carriage *reaches* this speed in a very short time.

LOOK, NO GEARS in this log carriage drive

It gives you snappier pickup, cuts power bills 10%

It's the Westinghouse log carriage drive—*built without any gears.* A special motor drives the cable drum directly. Here's how it can benefit your mill.

With no gears, the drive has less dead weight and less inertia than geared drives so the carriage accelerates faster and snappier. The drive uses about 10% less power. The cable takes less strain, the drive takes less space. There's no gear maintenance.

Rototrol® gives fast speed response

Here's where the profits come in. The carriage is accelerated extra fast by Rototrol, the master electrical intelligence. When the carriage starts up, Rototrol forces the generator to pump extra power into the drive motor. Then during the saw cut, the Rototrol accurately holds the carriage to a *constant* speed.

It's easy to operate

Thanks to Rototrol and the lack of gears, the drive always has a fine responsive "feel" to the sawyer. It's fast and alive, never sluggish. To move the carriage, the sawyer throws his control lever in the direction he wants. The farther he moves the lever, the faster the speed.

Call Westinghouse when you buy equipment

The gearless drive can be applied to most mills. For some applications, the standard geared drive is more suitable. Westinghouse, builder of the first electric log carriage drive, makes a complete line of *both* types and can help you select the best drive for your mill. In fact, Westinghouse makes *all* the electrical equipment used in lumber mills. When you're planning to buy equipment, call in Westinghouse early. Offices in all principal cities. Westinghouse Electric Corporation, Box 868, Pittsburgh 30, Pennsylvania. J-94873

YOU CAN BE SURE... IF IT'S Westinghouse

EQUIPMENT FOR THE LUMBER INDUSTRY

WESTINGHOUSE

in WIRE ROPE, too it takes the RIGHT KIND of muscle

The long flat muscles of the black panther give him the spring and suppleness he needs to survive in his particular environment. They're ideal for the job they're called upon to perform.

So, too, with wire rope! Specific jobs call for the right kind of muscle; the right construction and lay of the rope; the right grade of steel and size of wire…to best withstand the destructive forces encountered.

Wickwire Rope gives you the benefit of long experience and specialized know-how which assures you of exactly the right kind of rope your particular job demands.

For additional information write or phone our nearest sales office.

THE COLORADO FUEL & IRON CORPORATION—Abilene (Tex.) • Denver • Houston • Odessa (Tex.) • Phoenix • Salt Lake City • Tulsa
THE CALIFORNIA WIRE CLOTH CORPORATION—Los Angeles • Oakland • Portland • San Francisco • Seattle • Spokane
WICKWIRE SPENCER STEEL DIVISION—Boston • Buffalo • Chattanooga • Chicago • Detroit • Emlenton (Pa.) • New York • Philadelphia

LOOK FOR THE YELLOW TRIANGLE ON THE REEL

WICKWIRE ROPE

CF&I PRODUCT OF WICKWIRE SPENCER STEEL DIVISION THE COLORADO FUEL & IRON CORPORATION

METCO HOG and CHIPPER KNIVES

Scientifically conditioned for the extra-tough jobs in mills large or small . . . at less overall cost!

METCO KNIVES "ride with the punches", absorbing the shocks and rough treatment without a whimper. Yet they're able to maintain a keen, longer-holding edge that is praised by operators country-wide! RESIST BREAKAGE LONGER . . . MAINTAIN EDGES BETTER . . . with METCO KNIVES.

With all these advantages, Metco Knives still sell at approximately 25% less than regular tool steel knives.

AVAILABLE
Practically at Your
FRONT DOOR

METCO KNIVES are exclusively designed and produced by the largest manufacturer of INLAID SAWBITS AND SHANKS in the world.

Satisfaction Guaranteed

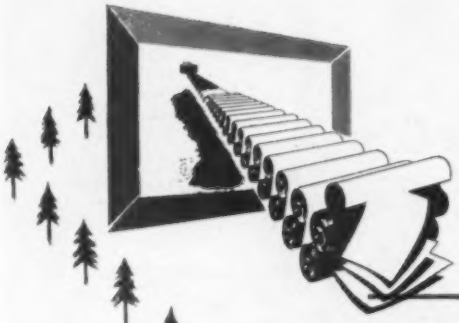
METCO inlaid sawbits and shanks have been giving satisfaction since 1938. They will give satisfaction in your operation too.

PROMPT SHIPMENT

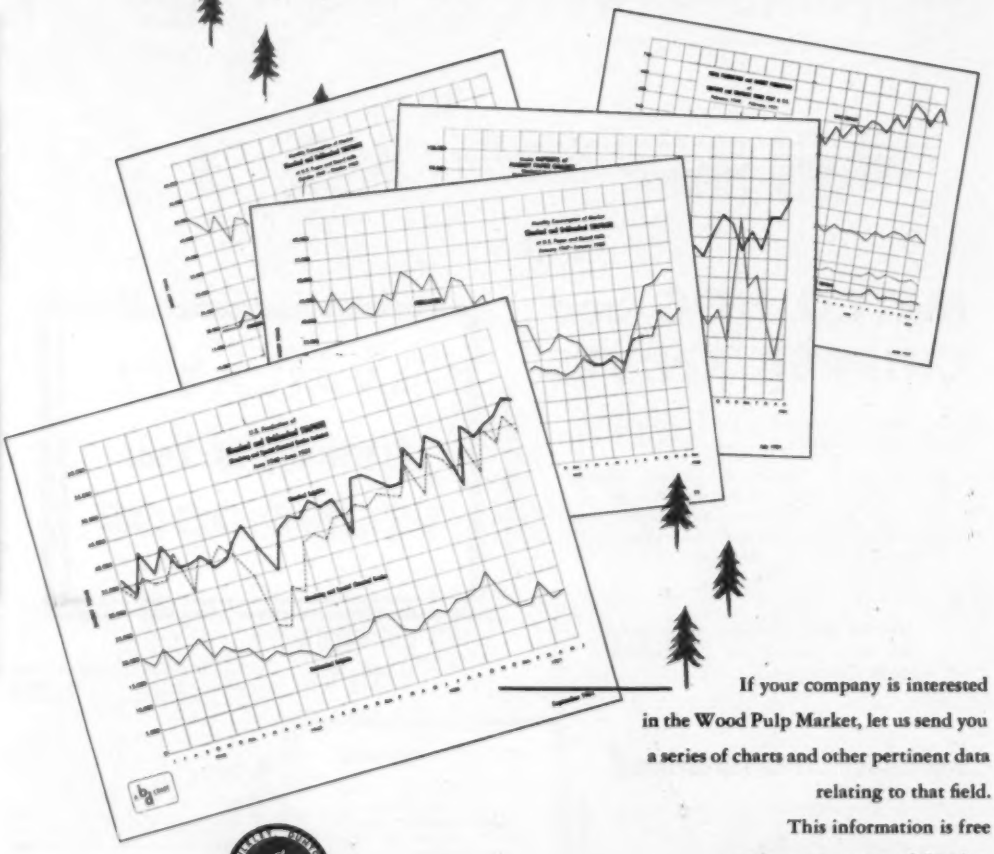
of METCO KNIVES is guaranteed in most standard sizes. Every shipment—large or small—is given the same careful attention.

TRY A SET OF METCO KNIVES. They will fully convince you that METCO KNIVES are the *superior of many and the equal of any* knife on the market today! Our re-order file has proven this to us.

METAL PROCESSING COMPANY



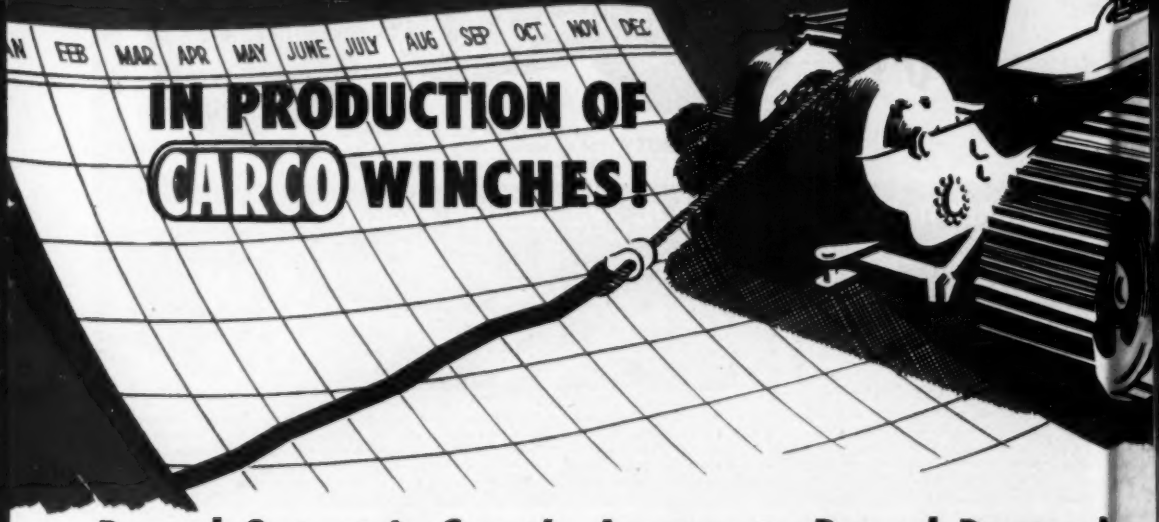
Look into the WOOD PULP PICTURE



If your company is interested in the Wood Pulp Market, let us send you a series of charts and other pertinent data relating to that field. This information is free and you assume no obligation.

BULKLEY, DUNTON PULP CO., INC.
295 Madison Avenue, New York 17, N. Y.

Every Month a New High



Record Output is Carco's Answer to Record Demand

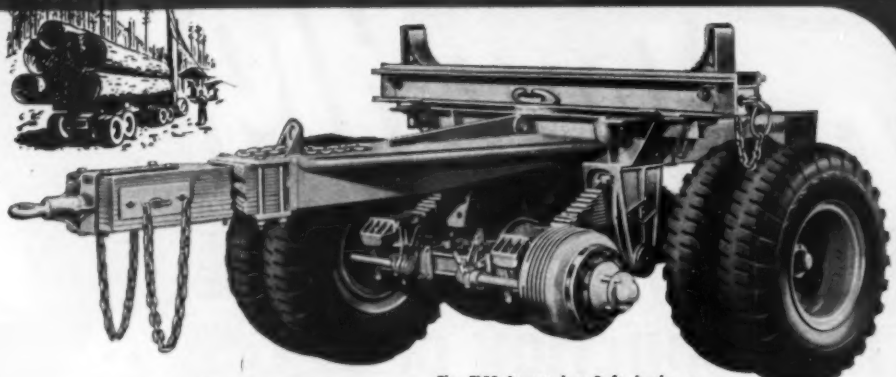
This year more tractor owners than ever before have ordered Carco winches, and more are getting delivery. Each month's total sets a new record. With the highest production of any tractor winch manufacturer, Carco is making every effort to keep up with the extraordinary demand for Carco winches that has been created by superior engineering and service. Pacific Car and Foundry Company: factory, Renton, Washington; warehouse, Portland, Ore.; eastern sales and warehouse, Franklin Park, Ill.

1st in Volume-
1st in Value!

CARCO

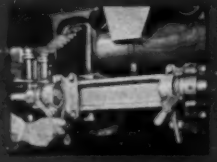
Extend Equipment Life, Save on Maintenance with

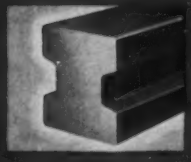
FRUEHAUF "Woods-Engineered" LOGGERS



TL55 HEAVY DUTY The TL55 Logger has 8 ft. bunks, a 24 ft. maximum reach length and rubber bushed trunnion and spring ends.

TAILORED-TO-THE-JOB FEATURES FIT THIS LOGGING TRAILER TO YOUR NEEDS!





BRUTE strength has been built into every part of this "Super Logger". It's a Trailer that carries the heaviest loads, month after month with little attention and less trouble. As a result, *maintenance bills are lower, down time is practically nil!*

That's because, among other things, it has logger-engineered king-size brakes. They operate against hi-tensile drums — the toughest in the industry.

Massive steel bunks, a hi-tensile main frame and an exclusive I-Beam Axle of chrome-molybdenum steel provide maximum strength per pound of weight.

All these are potent reasons why logging men everywhere have made Fruehauf "Woods-Engineered" Loggers the synonym for "tops" in on and off-the-road logging equipment. Ask your local branch man about a Fruehauf Logger to fit your needs.

FRUEHAUF TRAILER COMPANY

Logging Manufacturing Plant, Seattle, Wash.

Sales and Service: Portland • Seattle • Spokane • Sacramento San Francisco • Billings • Fresno • Salt Lake City • Phoenix Los Angeles • Albuquerque

FRUEHAUF Trailers "ENGINEERED TRANSPORTATION"

***FIRST* IN TRUCK-TRAILER TRANSPORT!**

Cummins® Diesels
do so many jobs-so much better

Shovels, cranes, industrial locomotives

Drilling rigs, centrifugal pumps, generator sets

Buses and on-highway trucks

...because they're custom-built to fit the job

Earthmovers, logging yarders and loaders

Off-highway trucks, crawler tractors

Work boats, pleasure craft

Lightweight, high-speed Diesels (50-550 hp) for these and many other uses

---

...because they're

BUILT NOT ONCE BUT TWICE

Rugged, lightweight, high-speed Cummins Diesels are at work everywhere. Each engine is built *twice*. It's assembled, run-in tested, disassembled and inspected, then reassembled and tested again. This extra care in building, plus Cummins exclusive fuel system and an efficient and expanding service and parts organization, means minimum "down time", more power and profits for the user. See your Cummins dealer.

CUMMINS DIESEL

TRADEMARK REG. U. S. PAT. OFF.

Diesel power by CUMMINS

CUMMINS ENGINE COMPANY, INC., COLUMBUS, INDIANA

Export: Cummins Diesel Export Corporation • Columbus, Indiana, U.S.A. • Cable: Cumdiex

The LUMBERMAN'S

FOREST INDUSTRIES NEWS

Brooks-Scanlan, Inc., has sold its 440,000 acres of forest land near Foley, Fla. to the Buckeye Cellulose Corp., a wholly owned Proctor & Gamble subsidiary that plans to erect a dissolving pulp mill at or near Perry, Fla. Foley is but a few miles from Perry and is the site of the lumber company's sawmill. The land is principally stocked with second growth pine, which has been under careful management for a number of years. At one time Brooks-Scanlan considered erecting their own paper mill there. The company is affiliated with that of the same name operating the mill at Bend, Ore., and Powell River Co., Powell River, B. C.

Atlas Plywood Corp., Boston, Mass., announced in October the acquisition of control of Plywood, Inc., Detroit, Mich., which includes mills in Southern Oregon and Northern California. Kalpine Plywood Co. and Southern Pacific Plywood Co., both at Klamath Falls, Ore., are the Oregon firms changing ownership through stock purchase largely from majority stockholders. The California operations of Plywood, Inc., presumably involved in the Atlas purchase, are Crescent Plywood at Crescent City and the new Anderson Plywood at Redding.

Lee Robinson, Mobile River Saw Mill Co., Mt. Vernon, Ala., was re-elected president of the National Hardwood Lumber Association at that organizations recent annual meeting in Chicago. In his annual address he predicted that the hardwood industry, unless it overproduces, should enjoy about the same sort of "uneasy" prosperity that it has enjoyed during the past year. He said inflation would be a controlling factor.

Powell River Co., Vancouver, B. C. has taken over Norcana Logging Ltd., whose owner-manager, Clair C. Smith, has been appointed assistant manager of the Powell River Co.'s logging division under Norman English. Mr. Smith has been active in logging in British Columbia for the past 18 years under the name of Smith & Osberg, Ltd. He was president of the Truck Loggers Association in 1947 and 1948. The Norcana operation is at Powell Lake.

Construction of Weyerhaeuser Timber Co.'s new plywood plant at Springfield, Ore., has started. This plant will have capacity of 3 million square feet of Douglas fir plywood per month when completed and will employ 300 workers. John W. Gischel, of the Springfield plant, is in charge of construction.

Harold Somerfeld, formerly employed by the Division of Industrial Safety for the state of California, has been appointed Director of the Accident Prevention Division of the Oregon State Industrial Accident Commission. Charles M. McBee, who has served as acting director of the Accident Prevention Division for the past year, will resume his former capacity as safety engineer of the Division in charge of the machine guarding program and safety standards.

Mr. E. B. Birmingham, president of Hammond Lumber Company, Samoa, Calif., has announced the retirement of H. W. McLeod as manager of the Southern California Division of the company, after almost 50 years of service. He will continue with the company as vice-president, director and member of the executive committee, and will act as advisor to the local management. Paul Hallingby, long assistant manager, has been appointed to succeed Mr. McCleod as manager of the division. P. J. Stillwell has been appointed assistant manager.

Paul M. Dunn, dean of school of forestry, Oregon State College, Corvallis, Ore., has been appointed to Society of American Foresters committee on accrediting United States forestry schools. This committee, headed by Myron Krueger, University of California, attempts to evaluate the facilities for instruction in forestry at institutions throughout the country, of which there are about 40 schools or departments now offering forestry work.

Construction of the new $25,000,000 container board mill on the Coosa River at Rome, Georgia, will begin immediately, it was announced today by Al H. Mahrt, president of the Rome Kraft Co., a newly organized corporation. The new company is owned by The Mead Corp., Dayton, Ohio, and the Inland Container Corp., Indianapolis, Ind, owners of the Macon Kraft Co., of Macon Georgia. Approximately 350,000 cords of pulpwood will be procured annually from Northwest Georgia and parts of Tennessee and Alabama.

New label tells you quick it's TIGER BRAND!

...the rope that spools evenly, resists kinking, handles easily!

This new label tells you quick it's American Tiger Brand wire rope, and it's the right rope for any equipment use—for lumbering, mining, petroleum or construction. Here's why it gives you top service...

It stands up under toughest tests because Tiger Brand is rigidly controlled all the way from raw ore to finished product by United States Steel, of which Columbia Steel Company is the Western producing member.

It spools evenly on drums and gets right on the job with a minimum of break-in time. And those high-tensile steel wires just won't quit! To get all the stamina that's engineered into American Tiger Brand, here's a tip ...

It works hard longer when you take advantage of the services of a Field Specialist. For free consultation, contact your Tiger Brand distributor or write Columbia Steel Company, Room 1422, San Francisco 4.

USS

U·S·S TIGER BRAND Wire Rope

UNITED STATES STEEL

Forest Industries News

David T. Waterhouse and J. D. Waterhouse, well known Gearhart, Ore., loggers have purchased the Gearhart golf course.

Northern hard maple, beach and birch flooring production for the first nine months of this year totaled 48,303,000 feet, an increase of 12 percent over the same period of 1950, according to L. M. Clady, secretary-manager of the Maple Flooring Manufacturers Association.

Carl H. Stoltenberg has been appointed assistant professor of forest economics in the Duke University School of Forestry. He is a former faculty member of the University of Minnesota Forestry School.

The Mengel Co., Louisville, Ky., long known in the lumber and allied forest products field, is making plans for the erection of a $20,000,000 paper mill near Jesup, Ga., to supply material to its corrugated box division and for other uses.

The Bureau of Indian Affairs approved the sale of 33 million feet of Umatilla Indian Reservation timber for $837,750 as bid by Pilot Rock Lumber Co., Pilot Rock, Ore. Cutting is to start this fall or next spring.

Fred W. Powers, president of Santiam Lumber Co., died September 23 in Portland, Ore., of heart attack. Born in Minneapolis, Minn., September 29, 1888, he moved to Coos Bay, Ore., in 1907 where he carried on in logging-lumbering until moving to Portland in 1937. At about this same time, Mr. Powers and Carl Davis, business associates for about twenty-five years, started operations at Sweet Home which developed into Santiam Lumber Co. with mills at Sweet Home and Lebanon, two retail yards, and logging operations.

Rayonier, Inc., at the end of this year, will close its sawmill at Hoquiam, Wash. E. C. Kaune, manager of this operation, will remain with the company. G. M. Rhebeck, manager of the company's timber division, said the mill is old—originally built in 1881 and rebuilt in 1906—and no longer competitive. Closing the plant has long been considered.

L. V. Brown, manager Northwest Timber Co., Gibbs, Ida., has been named chairman of the Inland Empire Section of the Forest Products Research Society. Howard Dix, lumber department Anaconda Copper Mining Co., Bonner, Mont., vice-chairman and Jon Titcomb, resident manager Potatch Forests, Lewiston, Ida., secretary-treasurer.

The following officers have been elected by the National Wholesale Lumber Distributing Yard Association: President, Lawrence S. Clark, Twin City Hardwood Lumber Co., St. Paul; 1st Vice-President, Alvin Huss, Huss Lumber Co., Chicago; 2nd Vice-President, Thos. W. Fry, Fry-Fulton Lumber Co., St. Louis; Secretary-Treasurer, Geo. W. Bateman, Daniel Buck, Inc., Philadelphia.

K. G. Fenson, of the Forest Products Laboratory, Vancouver, B. C., has been elected president of the Canadian Institute of Forestry, succeeding R. E. Balch.

Two well known names in Oregon lumber circles have organized Portland Ore.'s newest wholesale lumber firm, Whipple & Moshofsky Lumber Company with offices at 632 Pittock Block. Earnest Jerry Whipple, son of one of the state's best known millmen, Earnest G. Whipple of Drain, is one partner. Second member of the firm is Edward W. Moshofsky, for the past four years employed in the lumber buying department of Northwest Door Company's affiliate North Pacific Lumber Company. Also identified is Henry Granat, prominent as a lumber buyer and sales manager for E. K. Wood, Twin Harbors and other lumber firms in past years.

Ole Cristensen, prominent truck logger of Eugene, Ore., was killed recently in an auto accident. He operated 27 trucks for Pope & Talbot, Inc., Oak Ridge, Ore.

William F. Moncur has been appointed personnel manager of Bloedel, Stewart & Welch, Ltd., succeeding the late Tom Noble, according to announcement by S. G. Smith, vice-president and general manager.

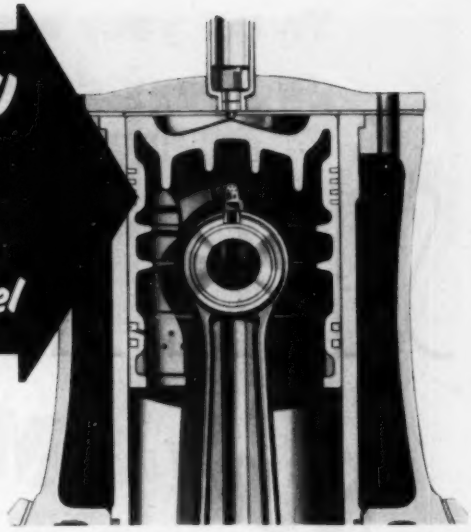
U. S. Plywood Corp. has taken over the management of the Panama Forests Products Corp., Panama City, Panama. It also has an option for the purchase of a 50 percent interest in the company. Vice-president Clifford P. Setter says his company is interested in developing use of Panama timbers and hopes to develop this material as a source of supply for some of its domestic plants. The Panama company has a sawmill and a veneer slicer. Willis E. Parnell, formerly at Algoma, Wis., is manager.

— More Late Industry News on page 23 —

MURPHY GIVES YOU

MORE ECONOMY
SMOOTHER OPERATION
GREATER DEPENDABILITY
EASIER STARTING

because it's a "True" Diesel



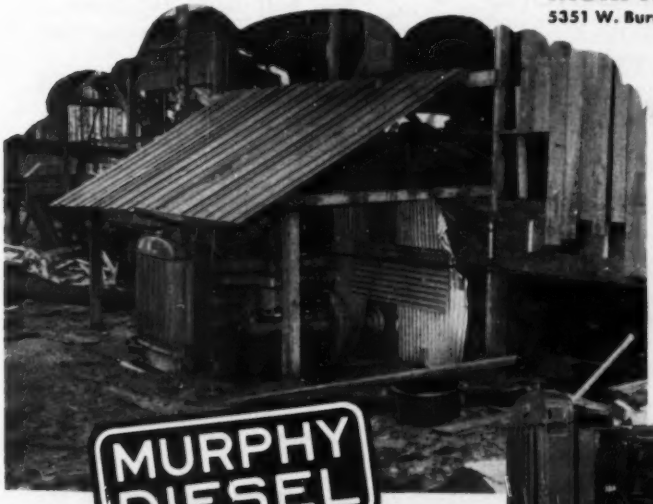
ILLUSTRATED at the right in cross section is the combustion chamber of the Murphy Diesel. Note that it is plain and open with no artificial devices to effect combustion. In operation, completely atomized liquid fuel is sprayed directly into all parts of the air charge by means of the unit injector located in the center of the combustion chamber. Since the fuel burns immediately upon injection into the incandescent air charge, combustion is controlled solely by the unit injector, which in turn is precisely controlled by the hydraulic servo-type governor. This is "true" diesel operation.

To the Murphy owner it means more power from each drop of fuel and less wear and tear on the engine . . . lower costs in all ways.

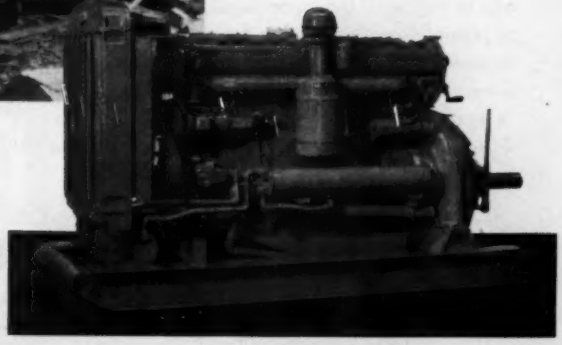
More details on "true" diesel operation as well as other Murphy features are given in the booklet "10 Questions to Ask a Diesel Engine Salesman." Ask your Murphy Diesel Dealer for a copy or write direct.

MURPHY DIESEL COMPANY
5351 W. Burnham St., Milwaukee 14, Wisconsin

SALES, PARTS, SERVICE: Seattle, Washington; Portland, Medford and Eugene, Oregon; San Francisco and Fresno, California; Boise, Idaho.



Illustrated is the 150 H.P. Murphy Diesel used to power the Swigert-Mitchum mill at Florence, Oregon. Dependable, economical Murphy Diesel power is ideal for jobs like this.



Heavy duty power
for the lumber industry

Murphy Diesel Engines and Power Units for the lumber industry are available in sizes from 90 to 226 H.P., 1200 and 1400 rpm, Generator Sets 60 to 140 K.W. 212

To cut your maintenance cost on heavy duty engines...

SHELL ROTELLA OIL

NOW IMPROVED

NEW SHELL ROTELLA OIL LEAVES THE "SPECIFICATIONS" 'WAY BEHIND!

● "Exceeds every accepted performance standard for oils in its class," the report says. It excels particularly in *piston cleanliness* and in *freedom from ring-groove deposits*. To you, this oil's big edge in its class means a tremendous increase in engine life... a drastic cut in maintenance costs. Yes, a real dollars-and-cents saving. Get the full story on *New* Shell Rotella Oil from your Shell representative.

STEPPED UP CLEANING ACTION

The ability to *suspend* contaminants has been deliberately stepped up in *New* Shell Rotella Oil. So has its *detergent* action. Engines stay remarkably *clean*.

EVEN GREATER ANTI-WEAR PROTECTION

New Shell Rotella Oil directly counteracts the acid action of fuel combustion products in the vital top-cylinder zone . . . with correspondingly great reduction in wear.

NEW **SHELL ROTELLA OIL**

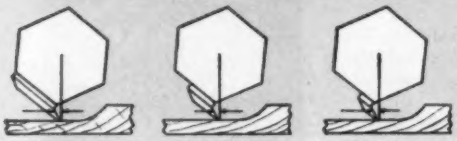
SHELL

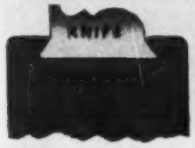
For all heavy duty engines

"3 reasons why I specify Jones & Orth cutter heads!"

Here's why a Jones & Orth H-Type Head is a better buy for your money!

1. **QUALITY OUTPUT!** No change of pattern or cutting angle as you take up for knife wear!
2. **SIMPLICITY!** Fewest possible number of parts without sacrifice of top performance!
3. **LONG LIFE!** Proven designs, with finest steels, precision machined, assure durability!





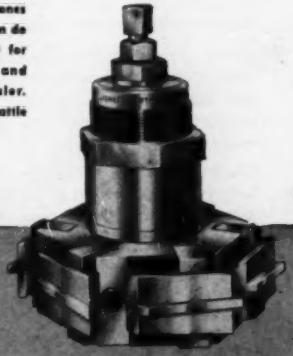
ABOVE diagrams show how a knife is moved forward to take up for wear, yet without change of cutting angle. LEFT diagram shows positive, safe grip of knife by the holder.

"No other cutter head gives us all these, —plus Service!"

In buying cutter heads, the voice of experience speaks for Jones & Orth as the BEST all-around buy in the field.

Side-by-side comparison of operating results again and again confirms the quality, durability and over-all economy of Jones & Orth cutter heads.

Find out NOW what Jones & Orth cutter heads can do for YOU! Write today for our latest catalog and name of nearest dealer. Address either our Seattle or Memphis branch!



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CUTTER HEAD COMPANY

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BOX 3044
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Need specially designed cutter heads? Let our engineers help! Write us in detail. Prompt service!

LUBRICATION SURVEY TRIMS COST FOR ELMER-MOODY

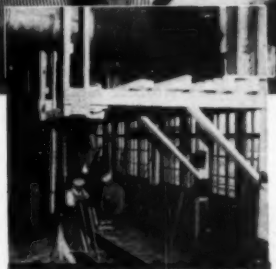
General Petroleum's Earl Beeson talks lubrication with Elmer-Moody maintenance chief Alex Larsen and superintendent Walt Bigelow.

In the face of rising maintenance costs, the Elmer-Moody Co., of Seattle, pioneer northwest manufacturer of wood products, had the General Petroleum Lubrication Engineers make a thorough machine-by-machine survey of their plant.

General Petroleum's findings caused Elmer-Moody Woodwork to institute a maintenance program which resulted in reduced operating costs at a time when many other firms were finding it difficult to control increased maintenance expenses.

Today, three years later, the machinery at Elmer-Moody continues to operate at peak efficiency for less. Inventory requirements have been reduced through proper use of multi-purpose lubricants and lubrication procedures have been simplified, according to plant maintenance head Alex Larson.

Chances are the General Petroleum Representatives in your area can help you effect savings in your maintenance budget, too. Call him in today and learn how a lubrication engineering survey can pay off for you.



The heart of the mill is this sticker which turns out up to 3,000 moldings per hour.

Large production sander has 102 vital lubrication points.

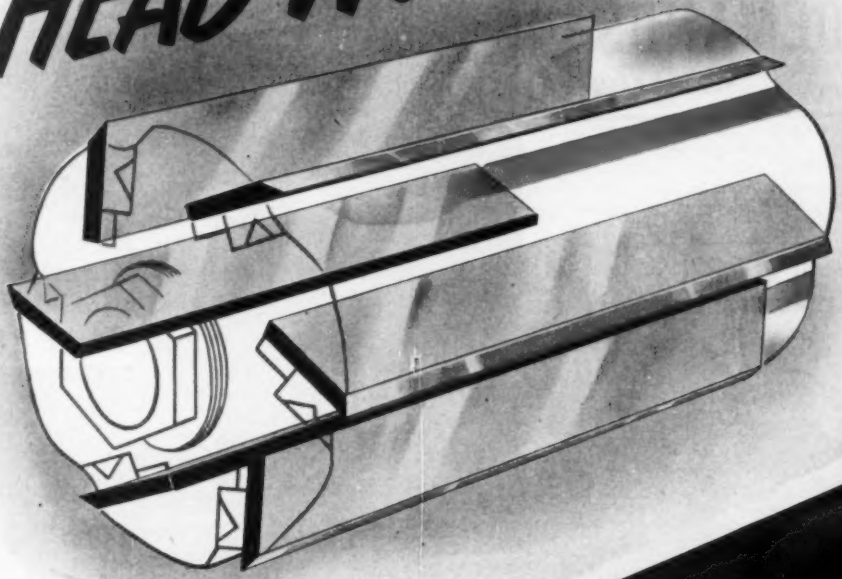
GARGOYLE Lubricants

GENERAL PETROLEUM CORPORATION

—converting nature's gift to better living.

3-806

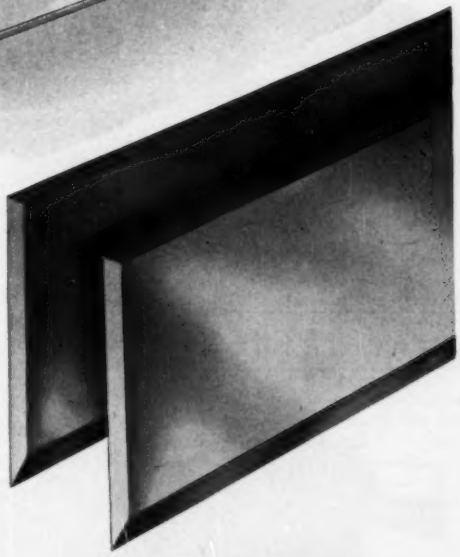
For the Smartest HEAD WORK



...GET

SIMONDS

THIN Planer KNIVES



Every knife does a 100% cutting job . . . no knife is a "free rider" . . . when cutterheads are fitted with Simonds "Red Streak" Thin Planer Knives. That's because you can always bank on SIMONDS Knives to cut evenly and wear evenly . . . they're even-tempered!

And Simonds Thin Planer Knives are perfectly matched in thickness, which is so vital to vibration-free operation because of its effect on the position of the clamping gibs, as the head revolves at high speeds. The tough cutting edge *that stays tough* is accurately ground and resists nicking. This means smooth cutting in the heart of every one of your machines.

Simonds Thin Planer Knives are made of steels especially designed for East Coast and West Coast operations. Get these long-lived knives from your Simonds Distributor *now*.

SIMONDS
SAW AND STEEL CO.
FITCHBURG, MASS.

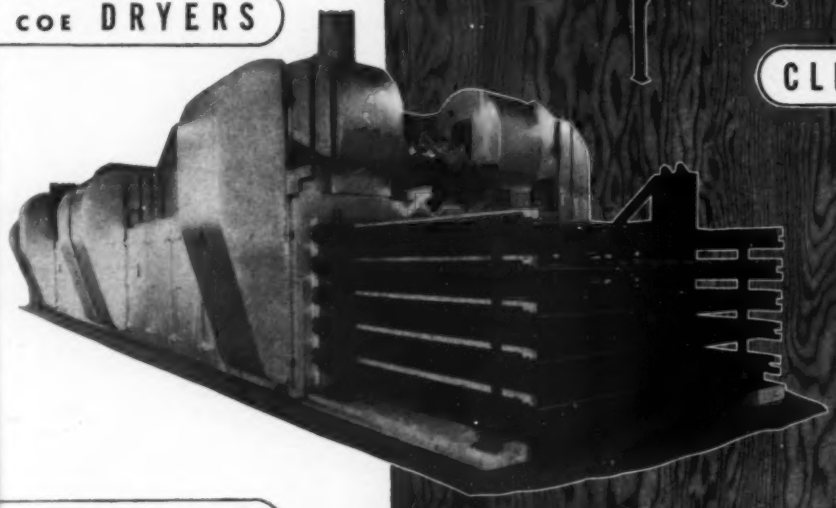
Branch Offices in Boston, Chicago, San Francisco and Portland, Ore. Canadian Factory in Montreal, Que.

MEET
INCREASING
VENEER
DEMANDS
WITH

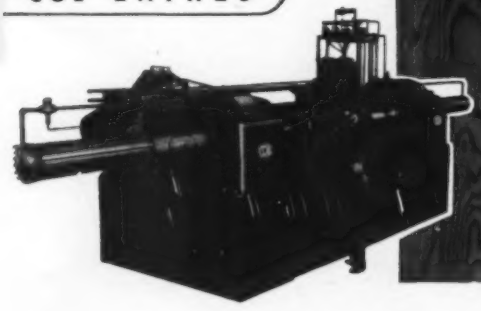
COE

COE DRYERS

CLIPPERS



COE LATHES



• Whether your new machinery requirements concern a single lathe, clipper, dryer or a complete coordinated plant setup, our experienced engineers will gladly discuss your problems with you.

The **COE MFG.** *Company*

350 BANK STREET • PAINESVILLE, OHIO

Forest Industries News

Appointment of Chester A. Westover to the procurement division of Associated Wood Products of the Northwest, Portland, Ore., has been announced by J. D. Gofrey, president. Westover will serve as a lumber buyer for both the company's Seattle and Portland plants.

Washington Veneer Corp. has started construction of 40-acre log pond between Coos Bay and Coquille, Ore. Here the company will build a peeler plant and sawmill, the former expected to be in operation by early next summer. In addition to manufacturing lumber and veneer at this site, the plant will function as a reload point to ship logs to the home plant in Olympia, Wash., and the Springfield Plywood Corp. at Springfield. Although now receiving logs, the company plans starting logging in near future on its timber in the Powers area. William Westrope, former manager of reload division of Independent Lumber Co., Myrtle Point, is manager of the new Washington Veneer operation.

B. M. Hoffmeister, president of H. R. MacMillan Export Co., Vancouver, B. C., was recently awarded the rare Military Order of Italy, degree of commander, at a ceremony in Ottawa at which the Italian ambassador to Canada officiated. Hoffmeister was a major-general in the Canadian Army during the war and was in command of all Canadian troops in the Italian campaign. He was assigned to command Canadian troops in Asia when Japan surrendered.

Cost of fighting 1921 forest fires in British Columbia this year totalled $1,327,000, the highest figure since 1938 when widespread fires burned over the Campbell River forests causing the loss of several million dollars worth of timber to industry. Last year's campaign against forest fires cost only $136,418.

Promotion of Jack H. Wood to supervisor of the Rogue River national forest with headquarters in Medford, Oregon, has been announced by J. Herbert Stone, regional forester for the Pacific Northwest region of the U. S. Forest Service. Wood leaves his present position as staff assistant in the Portland regional office Division of State and Private Forestry.

Effective October 15, Weyerhaeuser Timber Company opened in Portland, Ore., a branch office for its Department of Public Information, according to an announcement made today by W. J. DeLong, Director of the department. The office will be in the United States National Bank Building. The new unit will serve the company's branch operations at Klamath Falls, North Bend, Springfield and Mollala, Ore., and Longview, Wash. In charge of the new office will be Albert Arnst, who is being transferred from the company's main Tacoma office. Also headquartered in the branch office will be Edmund Hayes, a Weyerhaeuser vice-president and member of the company's board of directors.

The Long Bell Lumber Co. sold its retail store, known as the "Standard Mercantile Store," in DeRidder, La., to F. G. Schweitzer, formerly of DeRidder but resident of Longview, Wash. The sale was in accordance with the general policy of the company to dispose of its stores except in locations where they are considered necessary to manufacturing operations of the concern. Mr. Schweitzer has been with the Long Bell mercantile department since 1909, serving as manager of Standard Mercantile when he moved to Weed, Calif., in 1931 to manage the company store there.

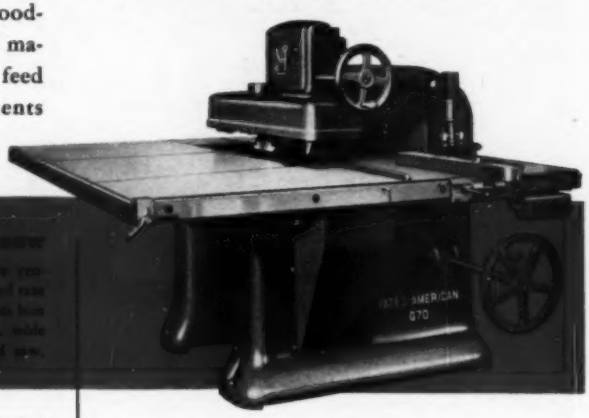
Primarily with a view to assisting the smaller sawmills of the British Columbia coastal district which are dependent on the open market for logs, several operators in the Vancouver district have formed an association of their own headed temporarily by Dan Giroday of Giroday Sawmills, Ltd. Name of the organization is Sawmill Log Procurement Association.

Significant of possible important developments in the forest industry of Vancouver Island was the recent visit to Vancouver and Victoria of Prince Axel of Denmark, chairman of the board of East Asiatic Co., holders of extensive timber in the Gold River valley on the west coast. East Asiatic Co. has applied for a forest management license from the provincial government involving 132,000 acres with a view to building a pulp mill or extending sawmill operations, but competition for some of this timber is provided by Bloedel, Stewart & Welch and Canadian Forest Products. East Asiatic Co. has a partnership with the Gibson brothers of Vancouver in operation of Tahsis Co., whose sawmills are in Port Alberni and Tahsis on Nootka Sound.

During 1951 fiscal year ending June 30 receipts from 19 national forests of Oregon and Washington reached a new all-time high—total of $26,244,000, nearly double receipts of previous year.

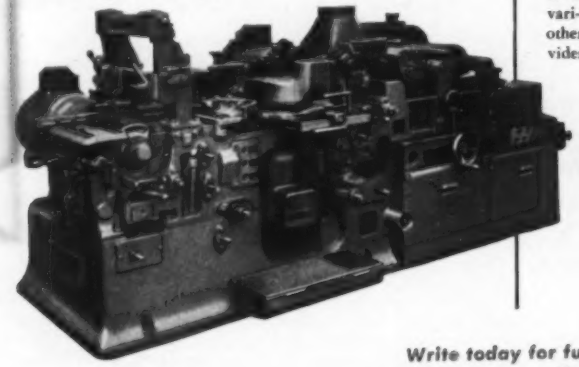
The Easy Operation of YA Machines Helps You Get Greater Production

Today's production schedules put a higher premium than ever before on convenient control. That's one reason why more and more woodworking firms depend on Yates-American machines for best results. Their well-designed feed arrangements, readily accessible adjustments and conveniently located controls make it easy for operators to set new records for *quantity* as well as *quality* production.

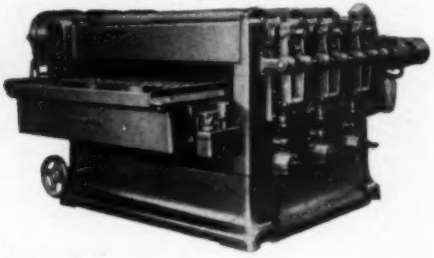


New Straight Line Precision Ripsaw — No. 6-70 — Handwheels and pushbuttons are centrally located. Vari-drive helps operator match feed rate to type of work. Exclusive hinged arm in table* lets him change saws easily. Handles stock 24 in. wide between guide and saw.

C-99 Heavy-Duty Moulder — Easy adjustments facilitate quick set up changes. Produces smooth, even finish on both light and heavy moulding. Built in 6, 8, 10, 12 and 16 in. widths; takes stock up to 6 in. thick.



S-333 Endless Bed Sander—Centralized controls and vari-drive feed permit close coordination with stock flow and other operations. Handles stock from 1/16 to 6 in. thick. Provides production sanding, extreme accuracy.



Write today for full information on Yates-American machines to meet your needs.

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MATCHERS • BAND RESAWS • SANDERS • SURFACERS • CIRCULAR RIPSAWS • HEADS & KNIVES

A Size to Fit Your Timber. To provide ample strength for your job and yet eliminate needless weight, ESCO shackles are made in 8 sizes from ⅝" to 1¾" inclusive. One of them is ideal for your timber.

Screw Pin Shackles are produced by cutting threads directly in the Manganese steel. In addition to shackles illustrated we also make special sizes and types for every kind of shackle service. Information upon request.

SHACKLES

of *ESCO Manganese Steel* . . . strong enough to "take it" with heaviest timber, in roughest country

Tough as they come are these shackles of work-hardening *ESCO* Manganese Steel. An old "standby" in thousands of logging camps, they have proved their ability to stand up under daily battering, wear and shock.

Complete information on *ESCO* shackles, including dimensions, weights and prices, is yours for the asking. Informative literature may be obtained from your nearest *ESCO* representative; or fill in and mail the coupon.

Straight Side Arch Hook Shackle. 5 sizes from 1" to 1½" inclusive.

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ELECTRIC STEEL FOUNDRY

2161 N. W. 25th Avenue, Portland 10, Oregon

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Please send information on ESCO shackles to

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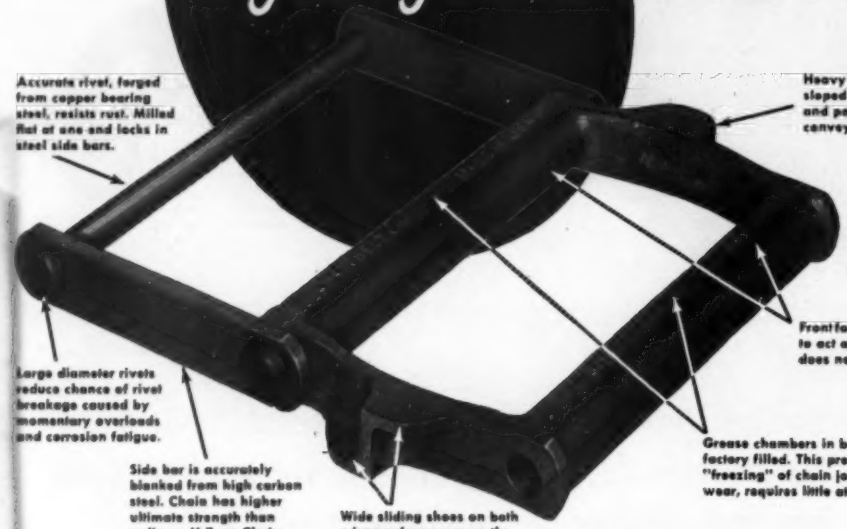
it's stronger.. it lasts longer... it gives you better service!


Accurate rivet, forged from copper bearing steel, resists rust. Milled flat at one end locks in steel side bars.
Heavy wearing shoes are sloped to avoid catching and possible damage to conveyor.
Front faces of barrels designed to act as scrapers. Material does not pack in the trough.
Large diameter rivets reduce chance of rivet breakage caused by momentary overloads and corrosion fatigue.
Side bar is accurately blanked from high carbon steel. Chain has higher ultimate strength than ordinary H-Type Chain.
Wide sliding shoes on both edges reduce wear on the chain and trough.
Grease chambers in barrels are factory filled. This prevents "freezing" of chain joints, reduces wear, requires little attention.

NEW REX* COMBINATION-TYPE REFUSE CHAIN HAS OUTSTANDING ADVANTAGES

Here's the finest chain for conveying sawdust, refuse, wood chips and similar material.

Rex *Combination-Type* Mill Chain is designed to handle assignments that prove too tough for ordinary H-Type Chain.

Check the captions. Each one points out an important reason why this new chain will give you longer service . . . better service . . . and lower overall costs. What's more, it can easily replace corresponding H-Type Chain, since it operates efficiently over the same sprockets and in the same trough.

For all the facts on this new chain, write to Chain Belt Company, 1653 W. Bruce Street, Milwaukee 4, Wisconsin.

OTHER REX FAVORITES IN THE LUMBER MILLS

Rex H-Type Chain | Rex Steel Chabelco* Chain | Rex Roof Top Chain | Baldwin-Rex* Roller Chain

*T.M.Reg.U.S.Pat.Off.

CHAIN BELT REX COMPANY ®

LUMBER MILL CHAINS

Northwest loggers OK DU PONT DYNAMITES for pushing access roads

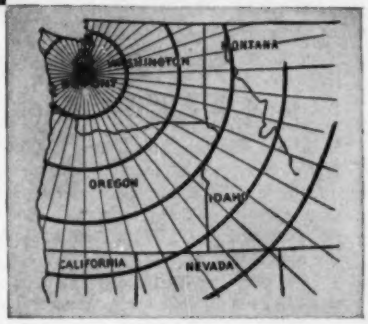
WHEN it comes to pushing access roads, feeder trails and rail lines through the rugged country of the Pacific Northwest, scores of timbermen rely on Du Pont Dynamites...and with good reason. Products of the Pacific Northwest, these dependable explosives are designed to meet every need of the logging industry...rock work...stump removal . . . land clearing.

DU PONT LOGGERS' NO. 2 is widely used by timbermen for land clearance. It's an economical dynamite with a slow, heaving action that assures a good "throw." Loggers' No. 2 rips out huge, deep-rooted stumps and tosses them aside for easy removal.

DU PONT SPECIAL GELATIN, a high-velocity dynamite, helps speed road work. Its tremendous power efficiently breaks up the toughest rock in the northwest territory. And, Special Gelatin's water resistance comes in mighty handy whenever conditions are extremely wet.

DU PONT "GELEX" NO. 2 offers many advantages. Its excellent water resistance often permits substituting it for the more costly gelatins. Semi-gelatinous and of medium-velocity, "Gelex" No. 2 is a good, all-round dynamite that helps keep quarry blasting operations and road work on schedule.

Remember—there are Du Pont Dynamites to fill all your blasting needs. Well known for their efficiency and economy, these popular products of the Pacific Northwest are used extensively by timbermen. Du Pont Dynamites are produced nearby in Du Pont, Washington (see map). Next time you have a blasting problem, call your



Du Pont Explosives representative. He's always glad to help you. E. I. du Pont de Nemours & Co. (Inc.), Hoge Bldg., Seattle, Washington.

Du Pont Explosives are *Pacific Northwest Products*

BETTER THINGS FOR BETTER LIVING ...THROUGH CHEMISTRY

DU PONT

REG. U.S. PAT. OFF.

PERFECT CONTROL IN THE TIGHT SPOTS

Sweet Brothers find TD-24 is the Champ on 4,000,000-tree job in rugged Oregon mountains

Selective logging in Oregon's Coastal Range is a tough job in tough country.

That's why Sweet Brothers Lumber Company gives the job to "Big Red"—the International TD-24. Listen to what the operator says:

"For perfect control in the tight spots, my TD-24 is tops. No other tractor in the woods can compare with it. It's more powerful, and it's far easier to handle on these 50 percent grades than any other tractor I've ever seen."

One big reason loggers find the TD-24 easier to maneuver is International's exclusive Planet Power steering. You get fingertip control, for pivot turns, feathered turns, and turns with power on both tracks.

You get 8 speeds forward, 8 speeds reverse, and synchromesh transmission. You shift "on-the-go." And you go up or down one speed without declutching.

Want more facts? Ask anyone who owns or runs a Big Red TD-24. Want the whole low-down? Ask your International Industrial Distributor—and ask him, too, about his fast, expert field service and complete shop facilities. Once you know the whole story, you'll be a TD-24 man from then on!

INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILLINOIS

INTERNATIONAL

POWER THAT PAYS

INTERNATIONAL HARVESTER

8,000 BOARD FEET OF FIR on the way to the landing—and grades up to 50 percent along the way. This Big Red TD-24 skids out 15 truckloads a day and dozes access roads.

ASK THE MAN WHO KNOWS! The man who operates this TD-24 says he has run 'em all and this is the "Big Red Champ," more powerful, easier to handle.

700,000 yds. for Montana

. . . being moved by C TOURNADOZER and 3 electric-control C TOURNAPULLS

New... C Tournapulls now have 18-ton Carryall increasing capacity to 15 yards. Prime movers with Tournamatic constant-mesh transmission and torque converters are also now available, as well as the "Roadsters" with their heavy-duty, sliding-gear transmission. Performance figures reported here were made with earlier 13.5-yard Roadster units.

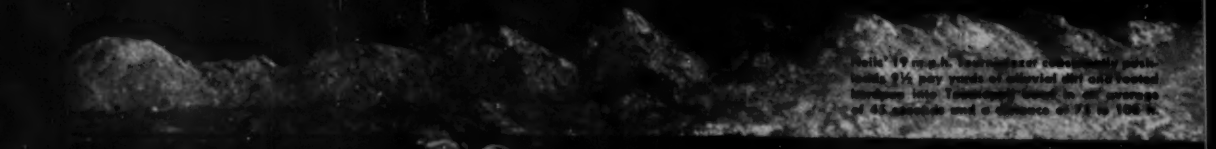
J. Neils LUMBER CO., Libby, Montana, keeps a fleet of LeTourneau rubber-tired dirtmovers busy building truck roads and railroad grades on their extensive logging properties. On their latest project — a 20 to 34-ft. wide road and parallel railroad spur line near Rexford — Neils is using 3 electric-control C Tournapulls, a C Tournadozer, an FP Carryall, and a tractor-dozer to move an estimated 800,000 cu. yds. of hardpan clay, rock, sand and gravel. The road will be used by the company to remove 100 million ft. of timber under government contract . . . then will revert to the United States Forest Service, which is engineering and supervising its construction.

741 pay yds. hourly on 600' cycle

Checked recently on a typical short, 300-ft., one-way haul, each of the high-speed Tournapulls was making 26 trips per hour. Loads in alluvial sand and gravel with Tournadozer as pusher, averaged 9½ pay yards each . . . load time varied from 35 to 50 seconds

HIGH-SPEED, RUBBER-TIRED EXCAVATING • HAULING • LIFTING EQUIPMENT

logging road and rail spur



... spread time from 10 to 15 seconds. Unit production: approximately 247 pay yards hourly.

369 pay yds. hourly on 2000' cycle

Performance of Tournapulls has been equally good on longer hauls. Over 1000 ft. of rough road, each "C" regularly completes 13 trips per hour. Loads in hard-packed gravel, again obtained with Tournadozer as pusher, also average 9½ pay yards. Cycle time of 4.4 minutes includes ¾ minute to load and 25 to 30 seconds to spread in thin, accurately-controlled layers over 100 to 125-ft. distances. Output on the 2000-ft. cycle: 123 yards per unit per hour.

Get all the facts

See for yourself what modern Tournapulls and Tournadozers can do in all kinds of materials... and weather... over any length haul. Ask your LeTourneau Distributor for a demonstration of the dirtmoving abilities of these machines, or ask him for job-proved facts and figures on work like yours.

Mountainous country requires highway fills up to 60' . . . cuts as deep as 30'.

Haul speed of Tournapulls on typical 2000' cycles averages 12 m.p.h.

Tournadozer - Tournapull - Carryall - Trademarks Reg. U.S. Pat. Off.
Tournamatic Trademark 8239

R. G. LeTOURNEAU, INC. PEORIA, ILLINOIS

LETOURNEAU LET EQUIPMENT

SPECIFY STRONGER—SAFER "HERCULES" FLATTENED STRAND

- 10% EXTRA STRENGTH
- LARGER METALLIC AREA
- SMOOTH RUNNING
- SMOOTH WEARING
- EASIER TO RIG
- EXTRA SAFETY
- EXTRA ECONOMY
- RED-STRAND QUALITY

SPREADS THE LOAD FOUR WAYS

"Hercules" Flattened Strand design spreads wear over *four* wires—not just one as in round strand. This compact outer surface greatly reduces *wear* in grooves of drums, sheaves and idlers. Tends to keep them smooth.

The triangular cross-section of the strands permits a smaller core, larger contact area between strands, and greater resistance to crushing. A smaller size Flattened Strand rope can usually be used for the same strength and safety requirements as round strand. Makes for *easier* rigging in tough spots.

Take advantage of the greater strength and economy of "Hercules" Flattened Strand Wire Rope.

LESCHEN WIRE ROPE

Consult our Engineering Department for specific recommendations. **A. LESCHEN & SONS ROPE CO., 5909 Kennerly Ave., St. Louis 12, Missouri. Distributors in all principal cities.**

because its controlled quality remains uniform from shipment to shipment
because it is manufactured from washed, carefully prepared, consistently uniform coal
because the same skill and experience utilized in the custom-production of steel is applied to creosote oil

ORDER CREOSOTE OIL DIRECT FROM INLAND

This is a picture of the coal storage yard at our Indiana Harbor Works. Here is the raw material for your creosote oil. This coal has been carefully selected as a fuel for the steelmaking process. It has been thoroughly washed in a modern preparation plant at the Inland-developed source of high grade coking coal in Kentucky. This single source eliminates the possibility of your getting creosote oil made from mixtures of different coal tars.

That's why Inland, with its skilled men and modern processing equipment, can produce creosote oil of the highest uniformity and quality. Toxicity and permeability invariably meet AREA and AWPA specifications.

• • •

Tank car quantities handled promptly

Contact the Railroad, Pig Iron and Chemical Division in Chicago or any of Inland's district sales offices.

INLAND STEEL COMPANY

38 South Dearborn Street, Chicago 3, Illinois

Sales Offices: Chicago • Davenport • Detroit • Indianapolis • Kansas City • Milwaukee • New York • St. Louis • St. Paul.

Principal Products: Sheets, Strip, Tin Mill Products, Bar Mill Products, Plates, Structural Shapes, Floor Plate, Piling, Reinforcing Bars, Rails and Track Accessories, Pig Iron, Coal Chemicals.

INLAND

Peterbilts

handle well on muddy roads

Fruit Growers Supply Company of Westwood, California, is owned and operated by members of the California Fruit Growers Exchange, world famous citrus cooperative. They own their own timber stands and one of the mills they operate is located at Westwood. Their timber stands are at about 6,000 feet elevation and they have a relatively short season due to rain and snow.

During the 1950 season they have used 4 PETERBILT SUPER LOGGERS, Diesel powered, with 12' bunks. Their haul is 28 miles over their own private road. Fruit Growers report that their PETERBILTS handle very well on muddy roads. Their average load is 13,500 feet and their maximum 26,600 feet.

Fruit Growers Supply Company have ordered 4 more PETERBILT SUPER LOGGERS for their Westwood operation, and they are adding 5 more PETERBILTS to their fleet of 10 at their Susanville operation. It's an impressive way of expressing silent satisfaction with the equipment in operation.

Peterbilt MOTORS COMPANY

10700 MACARTHUR BOULEVARD OAKLAND, CALIFORNIA

HEAVY DUTY TRUCKS—MACDONALD LOW BODY & LIFT TRUCKS

Specialized Treads!

Now for the first time, truck operators can have a tire that meets the most severe demands of *specialized on-and-off-the-road* tire work—the U. S. Royal Fleetmaster! It's specially designed and compounded to give *sharp penetration* and *super traction off the road* PLUS *smooth-rolling, non-skid mileage* when you pull up *onto the highway!*

These are the Fleetmaster Facts!

- ★ *70% deeper traction tread!*
- ★ *Tougher, stronger carcass! (More Recaps)*
- ★ *Job-fitted tread compounds!*
- ★ *Thicker under-tread!*
- ★ *Round-molded to the tire's inflated shape to reduce distortion stress and strain!*

See the new Fleetmaster at your nearest U. S. Royal Dealer. **A phone call does it.** He's listed in the Classified Telephone Book.

UNITED STATES RUBBER COMPANY

"Acres of diamonds" *Loggers' style*

TODAY'S FORESTER

Now days, he knows machinery;
New logging ways he's steering.
And BERGER is a name he trusts,
For job-proved engineering.

"Remember the world famous story? A man couldn't find riches anywhere—until he dug up 'acres of diamonds' in his own back yard.

"Today, the new 24-inch BERGER-REES AUTOMATIC AIR TONGS are bringing a new kind of conservation to the Northwest woods. It's spreading to Canada and you'll soon see it everywhere. Conservation that cleans up after logging!

"Berger-Rees Automatic Air Tongs load small logs, chunks—material formerly wasted—economically and faster'n you can say Paul Bunyan.

"They're a surprise in another way, too—they add very little to your shovel investment. Small cost to open up 'acres of diamonds' with the

new 24-Inch BERGER-REES automatic AIR TONGS"

Also available: 30-inch, 42-inch, and 30-inch Air Tongs for sensational speed and efficiency in loading larger logs.

¾-yard Marion shovel loading varying length logs with 30-inch BERGER-REES Air Tongs.

Berger Portable Steel Logging Tower* with a truck-mounted Berger yarder. Highly mobile . . . ready-rigged . . . this successful combination brings high-lead efficiency to re-logging and pre-logging. Berger-Rees Air Tongs insure mobility throughout entire logging operation.

***N. W. loggers call it "the peanut post on the macaroni side."**

Inquire about Color Movies showing this revolutionary loading method in action on various kinds of logging shows.

Write for new free folders on:

- ☐ **1. New 24-Inch Berger Automatic Air Tongs;**
- ☐ **2. Larger Size Berger Automatic Air Tongs.**

NOW YOU'RE LOGGIN' WITH **Berger**

Loaders . . . Yarders . . . Fairleaders . . . Blocks . . . Air Tongs . . . Air Valves . . . Loading Booms

Tops in Performance — Tops in Lasting Values

BERGER ENGINEERING COMPANY

3236 SIXTEENTH AVENUE S.W. · SEATTLE 4, WASHINGTON, U.S.A.

Smooth in operation because it's simple in design ...the PACIFIC-WESTERN TORQUE CONVERTER

The Pacific-Western Torque Converter (above) teams up with the Pacific-Western Torq-Master to provide smooth power transmission.

Four basic Pacific-Western Torque Converter parts illustrated are (from left): pump, reaction member, turbine and pump drive housing. When assembled in the order shown they form a fluid link from engine to output shaft.

Simplicity of design is an important reason for the outstanding performance of the Pacific-Western Torque Converter in western yarding equipment. Only three sets of cast blades are used to provide automatically the most efficient speed torque relationship for any yarder ratio. The need for an elaborate seal assembly is eliminated because only one type of hydraulic fluid is used for both power transmission and lubrication of bearings.

Pacific-Western Torque Converters are made in our Seattle plant and are available from stock as original equipment in new yarders as well as for the profitable conversion of older units. Operating with Diesel engines up to 550 h.p. at 2100 r.p.m., Pacific-Western Torque Converters may be obtained with the Pacific-Western Torq-Master or with a chain housing only.

To find out how the Pacific-Western Torque Converter can help bring in more logs for you at lower cost, call the plant or office nearest you for full information. Skilled Pacific-Western application engineers are always ready to give careful study to any of your power transmission requirements.

PLANTS • *417 Ninth Ave. S., Seattle 4, Wash.*
1035 Folsom St., San Francisco 3, Calif.
2600 E. Imperial Highway, Lynwood, Los Angeles County, Calif.
117 N. Palmer St., Houston 3, Texas

REPRESENTATIVES • *930 S. E. Oak St., Portland 14, Ore.*
Room 211, Chamber of Commerce Bldg., Denver 2, Colo.
1366 W. Broadway, Vancouver, B. C.

8180

WESTERN GEAR WORKS

Manufacturers of PACIFIC-WESTERN Gear Products

Pacific Gear & Tool Works

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San Francisco
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Houston
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MACKS make light of heavy loads . . .

Big Mack super-duty trucks make the hard jobs look easy... because in design and construction they incorporate numerous outstanding features that contribute to easy maneuverability, ease of control and positive traction regardless of terrain.

Powerful Diesel Engines! Hydraulic Power Steering! Air Assist Clutch! Flexible Rubber Shock Insulators! Mack's famed Balanced Bogie and Power Divider. All are Mack features that assure power and strength for the heaviest loads; flotation and traction for the most slippery mud or sand.

Your nearest Mack branch or distributor will give you the full story on what Macks can do for you in trouble-free, uninterrupted schedules... greater profits through greater output at lower cost. You'll find it's a story well worth hearing.

Only Mack gives you all the advantages of the famed Balanced Bogie. Positive traction because of exclusive Power Divider. No spring twist because of Mack Rubber Shock Insulators. Inherent flexibility eliminates chassis distortion. Extended tire life because of uniform tire loading. Minimum maintenance because of simplicity of design.

Mack TRUCKS

...outlast them all

Mack Trucks, Inc. — Los Angeles • Denver • San Francisco Seattle • Portland • Salt Lake City • Factory branches and distributors in all principal cities for service and parts.

Mack Model LJSW, six-wheel diesel powered truck operated by Warren D. Cassal of Pilot Rock, Ore.

STANDARD ENGINEER'S REPORT

DATA

PRODUCT Chevron Starting Fluid

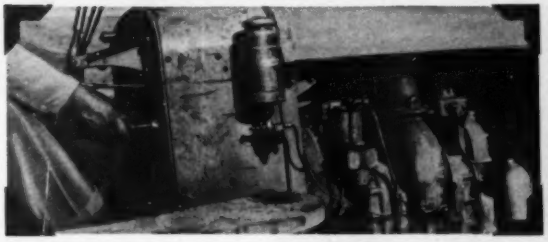
UNITS A. C. diesel engines HD-7 tractors

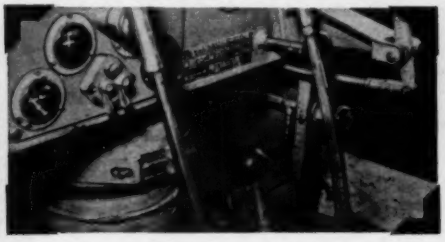
CONDITIONS 25° below zero weather—parked in open shed

EQUIPMENT Permanent primer with atomizers on blower

FIRM John W. Graves Heppner, Oregon

Engine starts on first turn at 25° below zero!

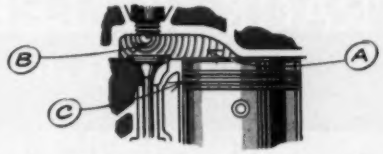




CHEVRON STARTING FLUID started this engine instantly every time during a severe Oregon winter, even when the tractor had been idle for several days in temperatures down to 25° below zero! John W. Graves, owner, says, "Power in the starter battery would last only for two or three revolutions of the engine, but Chevron Starting Fluid required only one turn to kick it off." With one or two strokes of the dash-mounted pump, fluid was forced from the storage tank (left center) into the "blower", before the starter button was pushed.

ATOMIZER NOZZLES, as shown on this diesel "blower", are also used to inject Chevron Starting Fluid into intake manifolds of gasoline engines. Complete primer equipment may be purchased from your fluid supplier. Chevron Starting Fluid comes in 3-pint cans, and capsules of two sizes—7CC's and 17CC's, packed 12 and 24 per can. It is approved by leading engine manufacturers.

How CHEVRON Starting Fluid Starts Gasoline and Diesel Engines Instantly



A. Atomizes in lowest temperatures and provides powerful, easily fired vapor in combustion chamber.

B. Pressure, or the weakest spark, fires mixture—turns engine and heats air for regular fuel mixture.

C. Contains lubricant and additives—prevent cylinder wear and ice formation in primer equipment.

HOT NEWS — COLD ENGINES

FREE BOOKLET gives you more facts on Chevron Starting Fluid—shows where it should be applied in different type engines. Write or ask for it today.

CHEVRON STARTING FLUID

TRADEMARK REG. U.S. PAT. OFF

STANDARD TECHNICAL SERVICE checked this product performance. For expert help on lubrication or fuel problems, call your Standard Fuel and Lubricant Engineer or Representative; or write Standard Oil Company of California, 225 Bush St., San Francisco.

STANDARD OIL COMPANY OF CALIFORNIA

Toughies...

that can take the PUNISHMENT!

CARROLL

Manganese Alloy Steel

TRACK ROLLERS

...One-Piece Shells

3 TYPES AVAILABLE

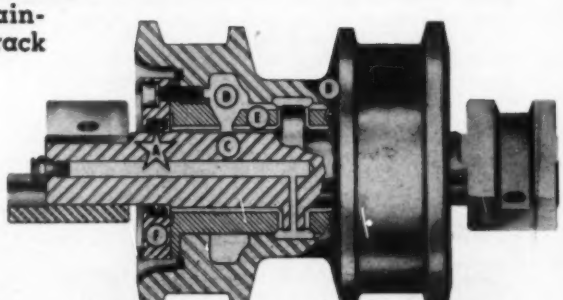
- ***Pressure Lubricated*** **with *Guard-Z-Oil "Flow-Away" Dirt-Exclusion Sealing.**
- ***"DE" Series*** **— also with "Flow-Away" Dirt-Exclusion Sealing. Parts interchangeability features.**
- ***Conventional End-Thrust*** **. . . Its One-Piece Shell makes it a good buy!**

GUARD Z OIL ®

The harder the going, the more maintenance Foremen swear by Carroll Track Rollers. Experience shows that they reduce shut-down time and operating costs... STAND UP and take the most brutal treatment known!

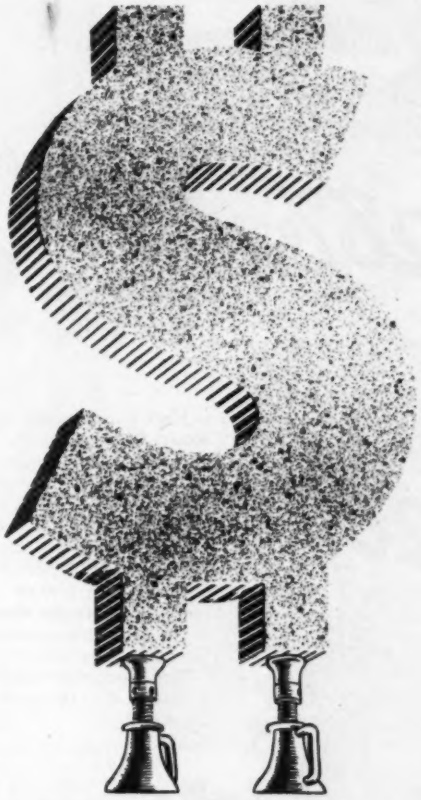
THE INSIDE DOPE ON THE CARROLL "DE" ROLLER

(A) "Dirt-Exclusion" Seal
(B) One-Piece Shell
(C) Center Thrust Type Shaft
(D) Grease Reservoirs (5 times average capacity)
(E) Bronze Bushing
(F) Seal Housing



Write or Wire for Complete Information

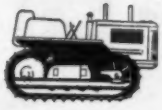
CRAIG CARROLL COMPANY



Balance Your Costs with Modern Machinery

Portland Headquarters: 5821 N.E. Glisan Street

Howard-Cooper Corporation

PORTLAND  OREGON

Branch Offices: Albany • Central Point • Coquille • Eugene • Newport • Roseburg • Seattle

Every Link the Same...

28%

28%

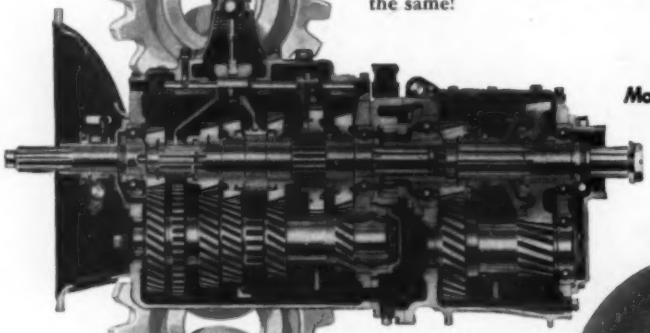
Here's one reason why every rig equipped with a Fuller ROAD RANGER 10-speed Transmission is posting new records for *higher average speeds:*

Every link is the same, in *equal, progressive,* and *selective* steps—at the driver's command *without gear-splitting.*

Every shift—up or down—is a 28% step. Every ratio is completely usable. Not one of the 10 forward speeds overlaps the next higher or lower ratio.

With these closely spaced ratios—controlled with *one* lever—it is *easy* for the driver to keep the engine operating in *the* maximum economy range . . . to keep the load rolling faster, for less.

Write today for complete information on the Fuller ROAD RANGER, the 10-speed transmission where every link is the same!



Model R-95-C ROAD RANGER®

where horsepower goes to work

Fuller TRANSMISSIONS®

FULLER MANUFACTURING COMPANY (Transmission Division), KALAMAZOO 13F, MICHIGAN

Unit Drop Forge Division, Milwaukee 1, Wis. • WESTERN DISTRICT OFFICE (SALES & SERVICE—BOTH DIVISIONS), 1060 E. 11th Street, Oakland 6, Calif.

Stain-free Lumber!

DU PONT'S NEW FREE BOOKLET

Shows how to get
control of mold and blue stain

Du Pont "MELSAN" for blue-stain and mold control

"Melsan" Fungicide, a thoroughly tested product of Du Pont research, effectively prevents surface molds *and* blue stain in a single treatment. Specially designed for locations where seasoning conditions are severe.

Du Pont LIGNASAN® for blue-stain control

One quick dip or spray in a solution of "Lignasan" Fungicide is the effective way to protect your lumber against blue stain. Treatment costs little, pays for itself many times over. Now available in handy one-pound bags.

Du Pont Technical Service

Du Pont technical representatives are ready to assist you in your stain-control program. Their practical knowledge can help you produce more bright, clean lumber.

Full Details—ON HOW TO GET BRIGHT LUMBER

Du Pont's new booklet describes complete, step-by-step program for effective control of blue stain and mold. This year, make sure *you* get the top prices that bright, clean lumber brings.

GET YOUR COPY NOW!

E. I. du Pont de Nemours & Co. (Inc.)
Grasselli Chemicals Department
Wilmington 98, Delaware
Please send me your new booklet on stain control. ☐
Please have your technical service representative call. ☐

Name_____ Firm_____

Street_____

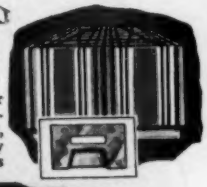
City_____ State_____

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

it's a FACT simple method tames damaging impact shock

There was a time when rigidly braced and free-floating loads would arrive at destination badly damaged. Left to shift for themselves, these loads more often than not would jam tightly at the doorways.



One of the worst carloads for jamming were skids of paper. Unloading had to be done by hand, ream at a time, until the doorway area was cleared. As a result, losses in time and money ran high.

Today, *Signode's Controlled Floating Load method* of product protection has stopped damaging load shift. The heart of this simple method is *Signode's Mechanical BrakemaN* which retards the movement of ladings on the car floor. Now doorways remain accessible. Damage to paper is reduced to the minimum. Cars can be unloaded by fast mechanical methods. Handling costs drop sharply.

it's a fact to remember

The controlled floating load method is one of four developed and perfected by Signode to protect ladings in transit. Many of Signode's 30,000 customers use them. Wouldn't you like to know *how* to use them efficiently to protect your shipments of *defense* or *essential* civilian products *today*—how to use them *tomorrow* when such reductions in costs become even more important in sales? Write,

SIGNODE
STEEL STRAPPING COMPANY
2616 N. Western Ave., Chicago 47, Ill.
Offices coast to coast. In Canada: Canadian Steel Strapping Co., Ltd.
Foreign subsidiaries and distributors world wide.

this seal *means security in shipping*

LIMA

CAPACITIES
CRANES-Up to 110 TONS
SHOVELS-¾ Yds. to 6 Yds.
DRAGLINES-Variable

LIMA Rubber Mounted TRUCK CRANES in 20 and 35 Tons Capacity

LIMA rubber-mounted cranes offer you the added benefits of greater mobility, less travel time and better maneuverability. Rotating assemblies have the same basic features as corresponding crawler machines, with alterations adapting them to truck or wheel mounting. With outriggers supported, they provide extra capacity; are ideal for operations requiring constant movement around the job, for small scattered jobs, or remotely located.

FIRST BY COMPARISON

LIMA Shovels, Cranes and Draglines have always stood alone by comparison because they are engineered and built to give every user the best value for his investment. Their high productivity, versatility and money-saving features keep down-time to a minimum and output at a maximum.

Investigate LIMA shovels, cranes and draglines. See for yourself how they help you get greater production at lower cost. *Baldwin-Lima-Hamilton Corporation, Lima-Hamilton Division, Lima, Ohio, U. S. A.*

BALDWIN BLH LIMA-HAMILTON

Our Seattle Office: 1932 First Ave. South, Seattle, Washington; Our Memphis Office: 79 McCall St., Memphis, Tennessee; Feenaughty Machinery Company, 112 S. E. Belmont St., Portland 14, Oregon; Feenaughty Machinery Co., 600 Front St., Boise, Idaho; Modern Machinery Co., Inc., 4412 Trent Ave., Spokane 2, Washington; Modern Mach. Co. Inc., 2963 First Ave. South, Seattle 4, Wash.; Jameson Engineering Sales, Fairbanks, Alaska; Dietrich-Collins Equipment, Ltd., 890 S. W. Marine Drive, Vancouver, British Columbia.

12101

BALDWIN-LIMA-HAMILTON

Cuts Maintenance To A Minimum!

Go modern- Go Hypoid!

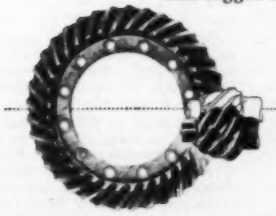
—ON TIMKEN-DETROIT

MEDIUM- AND HEAVY-DUTY AXLES

Today's military and civilian needs have placed a heavy load on the trucking industry—speeding the flow of goods between farm, city and industry! And a truck in the shop means lost time—and money—for both the truckers and the people they serve. That's why more and more foresighted trucking men are standardizing on Hypoid-Geared Timken-Detroit Axles.

This rugged axle gearing provides peak performance—at bedrock maintenance cost. Proved by billions of ton-miles of on-the-job operation, dependable Hypoid Gearing handles plenty of power, with strength to stand the toughest type of day-to-day service.

If *you* build or buy trucks you'll be wise to standardize on Timken-Detroit Axles and Brakes, too! They'll pay for themselves with longer life, greater efficiency, less maintenance!



HYPOID

HEAVY-DUTY GEARING

The *offset* Hypoid pinion is bigger and stronger. Bearings are bigger. More teeth are in contact, reducing loading per unit of contact area. Torque-transmitting capacity is increased. Slower gear ratios are practical without loss of strength.

SEND FOR THIS INFORMATIVE ILLUSTRATED BOOKLET ON HYPOID GEARING TODAY! IT'S YOURS FOR THE ASKING!

TIMKEN Detroit AXLES

A PRODUCT OF THE TIMKEN-DETROIT AXLE COMPANY

DETROIT 32, MICHIGAN

Accepted DA Standard

TRADE MARK REGISTERED

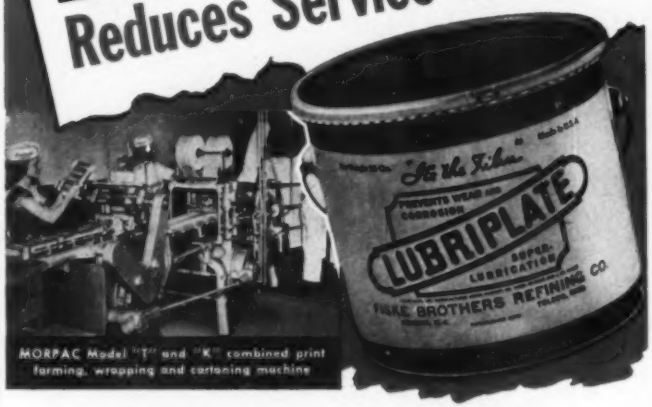
WORLD'S LARGEST MANUFACTURER OF AXLES FOR TRUCKS, BUSES AND TRAILERS

PLANTS AT: Detroit and Jackson, Mich. • Oshkosh, Wis. • Utica, N. Y. Ashtabula, Kenton and Newark, Ohio • New Castle, Pa.

LYNCH CORPORATION of Toledo, Ohio,
—a leading manufacturer of packaging machinery

says

"This Lubricant Reduces Service Calls!"



MORPAC Model "T" and "K" combined print forming, wrapping and cartoning machine

The following quotation is taken from a letter we received from their Director of Sales:

"The majority of our machines are used in places where it is necessary to wash them with steam and hot water after each day's use. This naturally would remove any ordinary lubricant and trouble would develop if the machines were not immediately relubricated. With LUBRIPLATE it is different. There is always a film of LUBRIPLATE left on the machine after washing. This gives protection not only to moving parts, but also prevents general corrosion. The presence of salt and lactic acid in packing plants makes oxidation a hazard. LUBRIPLATE prevents this too.

"LUBRIPLATE greatly reduces unnecessary wear and prolongs the life of machines. It has reduced customer calls for service to a minimum. Our Service Engineers can readily spot machines that have had other than LUBRIPLATE Lubrication, as these machines do not give the service they should.

"After using LUBRIPLATE for over ten years, we are very well pleased with it and enthusiastically recommend it."

A LUBRICANT must be more than good to warrant such a recommendation. The Lynch Corporation, as well as hundreds of others who build machines to sell, not only use LUBRIPLATE Lubricants in their own shops, but also advise the buyers of the machines to always use LUBRIPLATE for re-lubrication.

LUBRIPLATE Lubricants are different from all other lubricants. They have properties all their own . . . they reduce friction and wear, prevent rust and corrosion and save power. They stay put under most adverse conditions and do not run out or wash away.

There is a LUBRIPLATE Lubricant that is just the right density for your requirements. Let us tell you about it. *Write today.*

LUBRIPLATE DIVISION
Fiske Brothers Refining Company
Newark 5, N. J. Toledo 5, Ohio

DEALERS EVERYWHERE—CONSULT YOUR CLASSIFIED TELEPHONE BOOK

LUBRIPLATE
THE MODERN LUBRICANT

Mill and Camp News

One of Vancouver Island's best known trucking contractors, **W. E. "Bill" Schnare,** has wound up the affairs of his **S & S Trucking Co.** and retired, at least temporarily, from business. He has sold fourteen of his Mack trucks to **Salmon River Logging Co.,** which is now a part of the Powell River Co. organization.

Tom Mackenzie and **Art Leakey** head the **M & L Logging Co.,** currently operating in the Courtenay area of Vancouver Island on a contract with Comox Logging & Railway Co. Earl Woods has a sub-contract on truck hauling with a fleet of five trucks, moving about 10 million feet annually.

About half the production of **Creston Sawmills** at Creston in British Columbia's Kettle Valley is going into manufacture of boxes and shooks. The business is owned jointly by **D. L. Burns,** president, and **A. Farstad.** They are also interested in **Cranbrook Sawmills** at Cranbrook.

Fremont Sawmill Co., Lakeview, Ore., has purchased 18.7 million feet of Forest Service timber from the Camp Creek burn area for $360,660. The timber extends over 2126 acres of the 3500-acre area in Fremond national forest swept by flame last July.

W. M. Ritter Lumber Co., Columbus, Ohio, has acquired the sawmill, planer and timber holdings of Southeastern Industries, Inc., at and near Conway, S. C.

The pencil slat mill of the **Tennessee Red Cedar Woodenware Co.,** Murfreesboro, Tenn., was destroyed by fire over the Labor Day week-end. It was owned by Mrs. O. M. West and Mrs. Irene Patterson Stallings. The slat mill was Murfreesboro's oldest industrial plant. Firemen prevented spread of flames to the adjoining cedar bucket factory owned by William and Daniel Patterson.

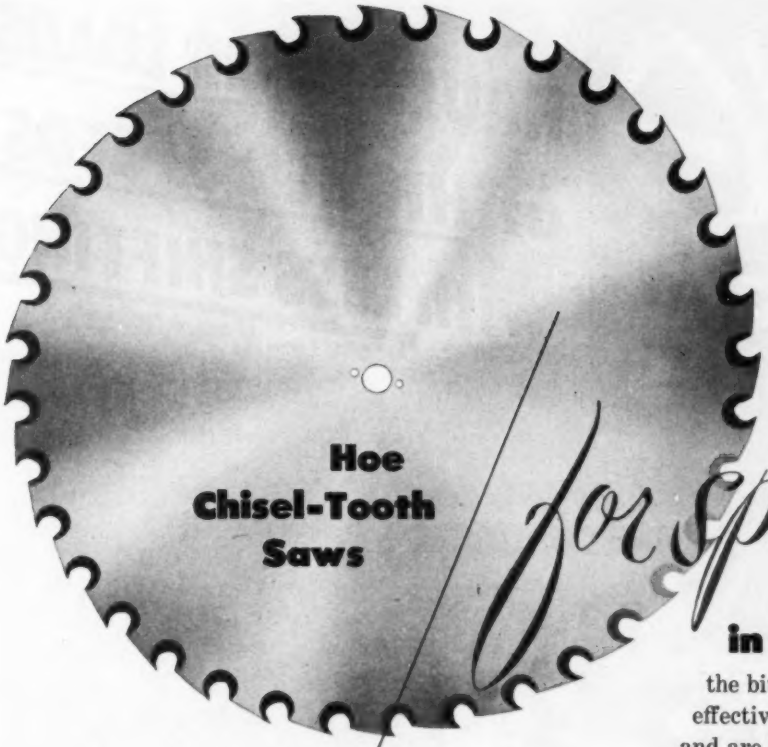
Fire damage amounting to $50,000 to building and equipment was sustained by Fayette, Ala., planing mill and storage sheds of the **Ray E. Lopez Lumber Co.** This plant had been made inactive and reported as sold to **E. A. Bagwell** prior to the second fire on Sept. 4.

Barney Gallagher has been named secretary-treasurer of the Southern Sash & Door Jobbers' Association, Memphis, Tenn. He left the position of sales and promotion manager of Johnston & Co.'s wholesale division to assume the direction of the organization.

Fire of undetermined origin caused an estimated loss of $75,000 to the sawmill and stocks of **H. J. Granger & Son, Inc.,** Palm Valley Road, Jacksonville, Fla., on August 22.

Erection of an $85,000 wood preserving plant is being effected by the **Brice Wood Preserving Corp.,** Archer, Fla. The plant will begin operations about January 1. **C. L. Brice** is president. He is identified with the Brice Lumber Co.

Oregon Woodwork Limited, has leased the box factory, planing mill and some of the storage facilities of the former Shevlin-Hixon Co. Bend, Ore. The latter company ceased operating in late December 1951, and the entire plant and timber holdings were purchased by the Brooks-Scanlon Company. Oregon Woodwork Ltd., plans to engage in the production of millwork and may establish a door department.



for speed

in production

the bits have the most effective cutting angle and are spaced with exact uniformity, while the throats of the shanks chamber the sawdust most effectually.

for accuracy

in manufacturing

the sockets are cut and beveled on milling machines, so that shanks and bits fit into them with absolute accuracy and all the bits align perfectly with the saw surface.

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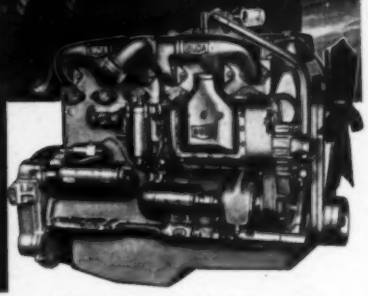
BIG BUDA DIESELS

HAUL BIGGER LOADS at HIGHER SPEEDS with LESS SHIFTING



Get these higher profit advantages with BUDA Diesels

More Power...More Profit with BUDA

Make BIGGER hauling profits with Buda Diesels—the BIG engines built to haul heavy log loads at high speed. Buda Diesels extra torque means less shifting—faster trips—more loads per day. Buda's proven heavy duty design gives you less maintenance, minimum downtime—more hours of profitable operation.

Ask your Buda Engine Distributor about money-making Buda Diesels today. Write for Bulletins and data. *The Buda Company, Harvey, Illinois.*

- ★ **More *useable* horsepower—13-25% greater piston displacement.**
- ★ **Greater lugging ability—9-23% more torque at normal operating speeds.**
- ★ **Dyna-Swirl Combustion—lower fuel cost.**
- ★ **More hours between overhauls—average approx. 6000 hrs.**

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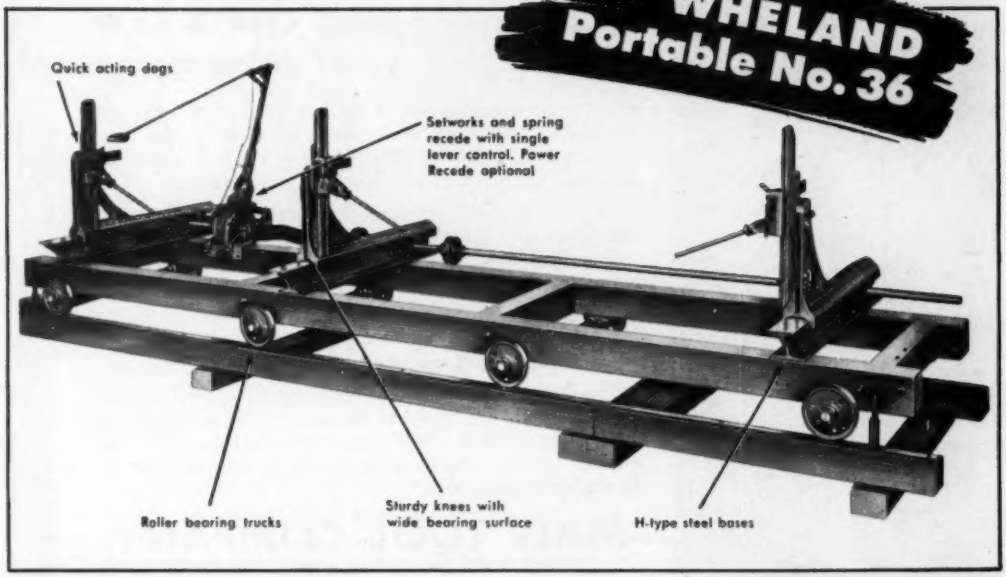
A PORTABLE MILL *with BIG MILL FEATURES*

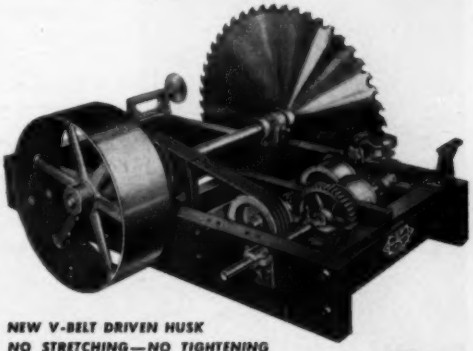
WHELAND Portable No. 36


Quick acting dogs
Setworks and spring recede with single lever control. Power Recede optional
Roller bearing trucks
Sturdy knees with wide bearing surface
H-type steel bases

WHELAND No. 36 IS FAST . . . DEPENDABLE . . . ACCURATE

The portable mill that makes the most profit is the one that can cut the most lumber—with fewer men to run it. The Wheland Portable No. 36 is built to do just that. It has one of the fastest small mill feeds ever built—sure and constant power with "V" belt drive. Finest quality construction throughout—strength where strength is needed, yet light enough for ease of portability.

New husk with "V" belt drive gives constant power with no slipping. Short, vertical feed belts insure instant and better control. One piece iron feed frame, simplest design, can't get out of line. Large arbor with heavy duty roller bearings. The best husk for your money.



NEW V-BELT DRIVEN HUSK
NO STRETCHING—NO TIGHTENING

Adaptable to diesel, gasoline or electric drive

Write today for full information on the Wheland Portable No. 36. It saves your lumber and saves your money. Bulletins free on request.

The WHELAND Company

MANUFACTURERS OF COMPLETE SAWMILLS AND AUXILIARY MACHINERY
CIRCULAR SAWMILLS—HEAVY, PORTABLE • BAND SAWMILLS • EDGERS AND TRIMMERS • TRANSMISSION AND CONVEYOR MACHINERY
CHATTANOOGA, TENNESSEE

FOR OVER 80 YEARS—THE FOREMOST NAME IN SAWMILL EQUIPMENT

5 YEARS OF STEADY FARM CUTTING WITHOUT OVERHAUL

His MALL CHAIN SAW still going strong

Read this report turned in by one of the Mall Service Managers. This Mall user, whose letter is in our files, purchased a Model 6 Mall Chain Saw 4½ to 5 years ago and has been cutting steadily with this saw ever since.

Last year in addition to his farm he took in $2385 on custom cutting. I asked him what type of timber the saw was used on and his answer was 'Everything that grows in my area.'

This man has used his Model 6 Saw very hard, probably ten or fifteen times more than the average farmer. In checking his saw I found it to be in very good condition."

Let us demonstrate in your neck of the woods, *under your own conditions*. We'll show you step by step, dollar for dollar, why a Mall Chain Saw is the best buy for you, whether you operate in a show, a mill, on the farm, or do timber maintenance.

MALL TOOL COMPANY

EXECUTIVE OFFICES: 7710 South Chicago Avenue • Chicago 19, Illinois

FACTORY SALES AND SERVICE BRANCHES IN 33 PRINCIPAL CITIES

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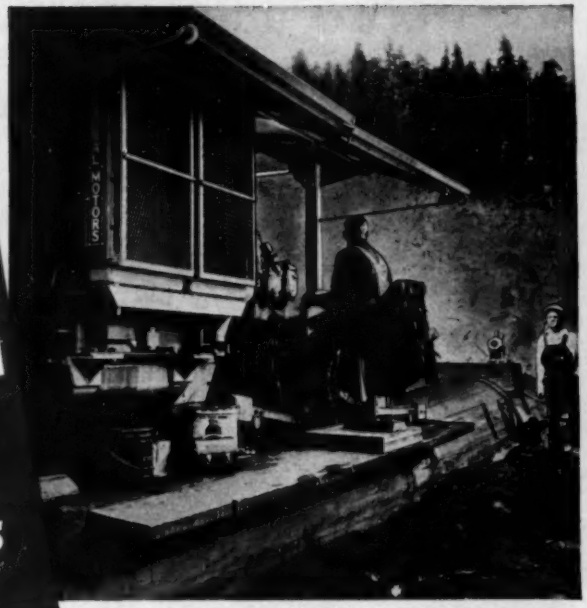
MORE SAWS ARE Mall® EVERYWHERE

Chain Saw Movies Are Available for Special Showing to Interested Groups. Write for Details.

No. 1 DIESEL *in the big woods*



Powered with GM Diesel Twin 6 Torque Converter unit, this Washington Iron Works yarder, operated by Weyerhaeuser Lumber Co., has yarded an average of 140,000 bd. ft. per day with a 12-man crew.

LOGGERS in the big woods report they get more work done in less time at lower cost with equipment powered by General Motors Diesel Engine-Torque Converter units.

GM Diesel's 2-cycle operation—power at every downstroke—gives instant acceleration, fast haul-back speed and tremendous line pull.

The combination of a GM Diesel engine with an integrally built Torque Converter and fluid coupling provides a compact power unit which makes available maximum engine horsepower and torque, regardless of the speed of the load. It delivers high torque for starting heavy loads and automatically shifts to fluid coupling when load requirements equal engine torque.

Gearshifting is cut to a minimum—often eliminated. Smooth transmission of power through a fluid protects both engine and driven machinery from sudden shock loads—prevents engine stalling under any load condition and greatly reduces line breakage.

These efficient Diesel Engine-Torque Converter units are available with 3-, 4-, and 6-cylinder engines, Twin 4 and Twin 6 multiple engines, rated at 64 to 294 B.H.P. See your GM Diesel distributor or write us for further information.

* * *

WRITE FOR YOUR COPY *of 24-page illustrated catalog giving full details on design, operation and application of "The NEW General Motors Diesel Engine-Torque Converter Unit."*

DETROIT DIESEL ENGINE DIVISION

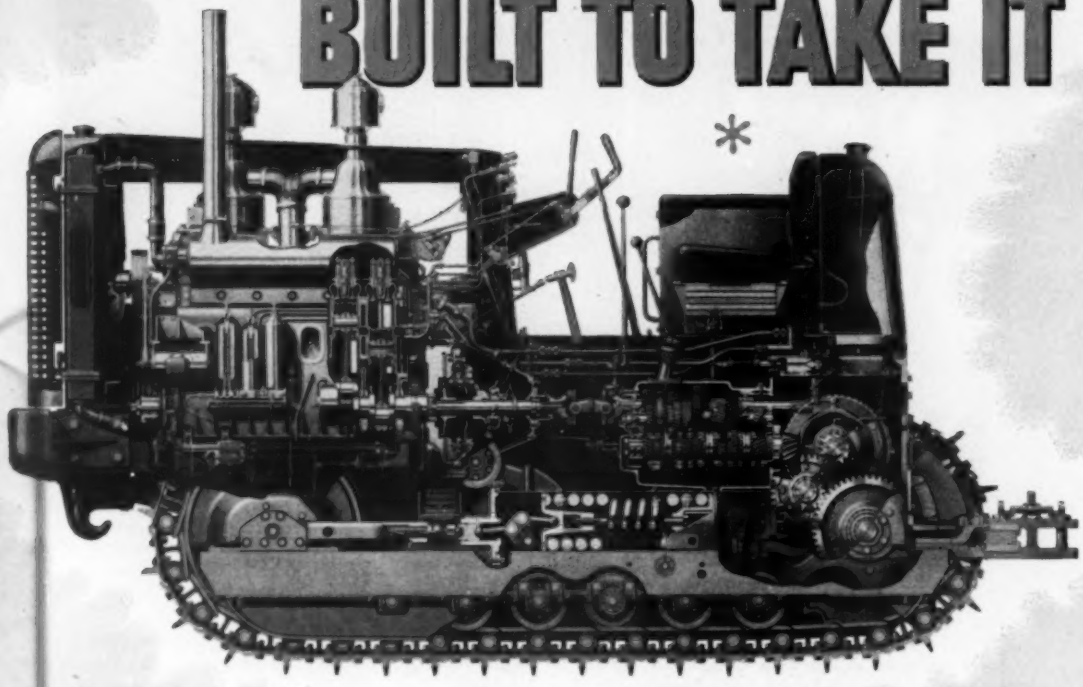
SINGLE ENGINES... Up to 275 H. P. **DETROIT 28, MICHIGAN** MULTIPLE UNITS... Up to 800 H. P.

GENERAL MOTORS

GM GENERAL MOTORS DIESEL POWER

DIESEL BRAWN WITHOUT THE BULK

Here's what WE mean by BUILT TO TAKE IT



The new Allis-Chalmers tractors are the toughest, strongest tractors ever built. Every part in each of the four models has ample size and strength to do its job — not a weak link nor a compromise anywhere.

And that's no accident! To bring you tractors like these . . . with the qualities you want . . . Allis-Chalmers built 'em completely new — from the ground up.

You can depend on them to take the loads, the jolts of today's jobs . . . because they are modern tractors designed for the most grueling operating conditions. They will more than measure up to your expectations!

Here are just a few of the many reasons why this NEWEST, FINEST TRACTOR LINE ON EARTH is *Built To Take It*... besides being easy to operate, easy to service and outstanding in performance. Your Allis-Chalmers dealer will gladly explain all these advantages . . . see him NOW.

- All-Steel Welded Construction
- More Power with Bigger Engines — Longer Engine Life
- More Weight, Greater Strength
- Extra Heavy Main Frames — No Extra Reinforcement Needed for Front-Mounted Equipment
- Long-Lasting, Large Diameter Clutches
- Double Reduction, Straddle-Mounted Final Drive Gears with Live Sprocket Shafts and Caged Bearings
- Positive Operating Track Release — Works in Oil on HD-9, HD-15, HD-20
- All New, Specially Designed Track Assembly
- Positive-Seal Truck Wheels, Support Rollers and Idlers — Mounted on Tapered Roller Bearings. 1,000-Hour Lubrication!

ALLIS-CHALMERS

TRACTOR DIVISION — MILWAUKEE 1, U. S. A.

The Newest, Finest Tractor Line on Earth!

40.26 drawbar hp.
11,250 lb.

70 drawbar hp.
18,900 lb.

102 drawbar hp.
27,350 lb.

Hydraulic Torque Converter Drive
175 net engine hp.
41,000 lb.

- DESIGNED FOR YOUR JOB
- BUILT TO "TAKE IT"
- EASY TO OPERATE
- EASY TO SERVICE

"TYDOL HD keeps our 45-truck fleet free from sludge and carbon"

Says Washington Dairy Manager

E. M. SORENSEN

"Our 45 big gasoline-powered dairy trucks cover about 125,000 miles per month—much of it stop-and-go driving. Lubricating such a fleet is a large order for any oil," says E. M. Sorensen, manager, Lewis-Pacific Dairymen's Assn., Chehalis, Washington. "Since changing to Tydol HD a year ago, we've carefully checked results.

"Our engines are now cleaner than ever before...and they're *staying* clean. We've found no sludge or carbon formation; had no valve trouble. And last winter, Tydol HD made starting much easier...lightened battery loads considerably."

LET TYDOL HD SAFEGUARD Your Equipment!

Especially during the cold months ahead, engines need an oil that makes starting quick and easy. An oil that gets rid of power-robbing sludge and carbon. An oil that counteracts corrosion and pitting of bearings.

Heavy duty, high detergency Tydol HD Motor Oil gives you all three. Its high V. I. assures easy starting in coldest weather. Its effective detergent action drives out sludge and carbon. And special ingredients in Tydol HD prevent corrosive acid action. No other oil keeps engines so clean...so free from wear.

Try it. See what you gain when you safeguard your engines with Tydol HD...the oil that ***cleans*** as it ***protects*** as it ***lubricates***.

3 GREAT HEAVY DUTY TYDOLS

100% paraffin base high V. I. motor oils scientifically compounded with selected additives.

TYDOL HD—High detergency

TYDOL HD S-1—Higher detergency

TYDOL HD S-2—Highest detergency

Ask your Associated Representative which Tydol meets your needs.

TYDOL HD MOTOR OIL

TIDE WATER ASSOCIATED OIL COMPANY (WESTERN DIVISION)

Entire cut of 175,000 foot mill trucked 68½ miles

Top: Peterbilt truck and Fruehauf trailer, powered by 400 series Hall-Scott engine, arrives at terminal of 68-mile haul with 15,000 board foot load of lumber. Truck has U. S. Royal 11:00-22 tires. Bottom: Loading empty Fruehauf lumber trailer, with Hyster lift truck, onto Peterbilt truck preparatory to returning to the sawmill.

For the last four years the entire lumber production of the 175,000-foot Oregon Lumber Company's Bates, Ore., sawmill has been transported by truck to the organization's plant at Baker comprising rather extensive finishing and remanufacturing facilities. Prior to 1947 the lumber had for many years been transported from Bates to Baker via a narrow-gage railroad.

Although there has been a remarkable change in transport method, the same common carrier firm that started out with strictly rail facilities operates the truck fleet on the present 68½ mile highway haul. This firm, Sumpter Valley Railway Company (an Oregon Lumber Co. subsidiary) was founded in 1890 as a narrow-gage line when roads from Baker into the Blue Mountains were non-existent. Built primarily for carrying lumber, its services were drawn on heavily by both miners and ranchers for getting products to market areas. Another important aspect of the rail line was its passenger service. Early days of the line are said to have been noted for its "daily schedule of two passenger trains each way" and many extra freights noted for "million dollar hauls of valuable lumber, gold, and livestock".

Originally the S.V.R. line was built from Baker to Sumpter Valley, but over-all plans called for extending it to Prairie City, on to Burns and across the deserts of Southeastern Oregon to Lakeview where it would connect with a narrow-gage line from California and Nevada. The line was completed to Prairie City, about 80 miles from Baker.

Following a half-century as a rail operation this common-carrier organization replaced the rail facilities between Baker and Bates with four Peterbilt trucks and Freuhauf trailers in 1947. Subsequently another such unit was added to the system, making it a 5-unit fleet. These five trucks, still efficiently handling the job, after having each rolled up a travel history of about 300,000 miles, continue to haul 170,000 to 180,000 board feet per day over the intervening 68½ miles between Bates and Baker.

Each of the Peterbilts is powered by a 400 series Hall-Scott gasoline engine, pulls a Fruehauf full trailer, each unit hauling about 15,000 feet of lumber per load. These trucks have Timken 456 drive axles with 6.8 to 1 gear ratio, Timken TW36,000 lb. front axles, Westinghouse air brakes. Each of these units is equipped with a Sagamo Tachograph and a Hydrotarder. According to J. Floyd Carpenter, general manager of Sumpter Valley Railway, "In the four years the trucks have operated, there has never been a change of brake drum on any of the units and brake blocks are seldom changed."

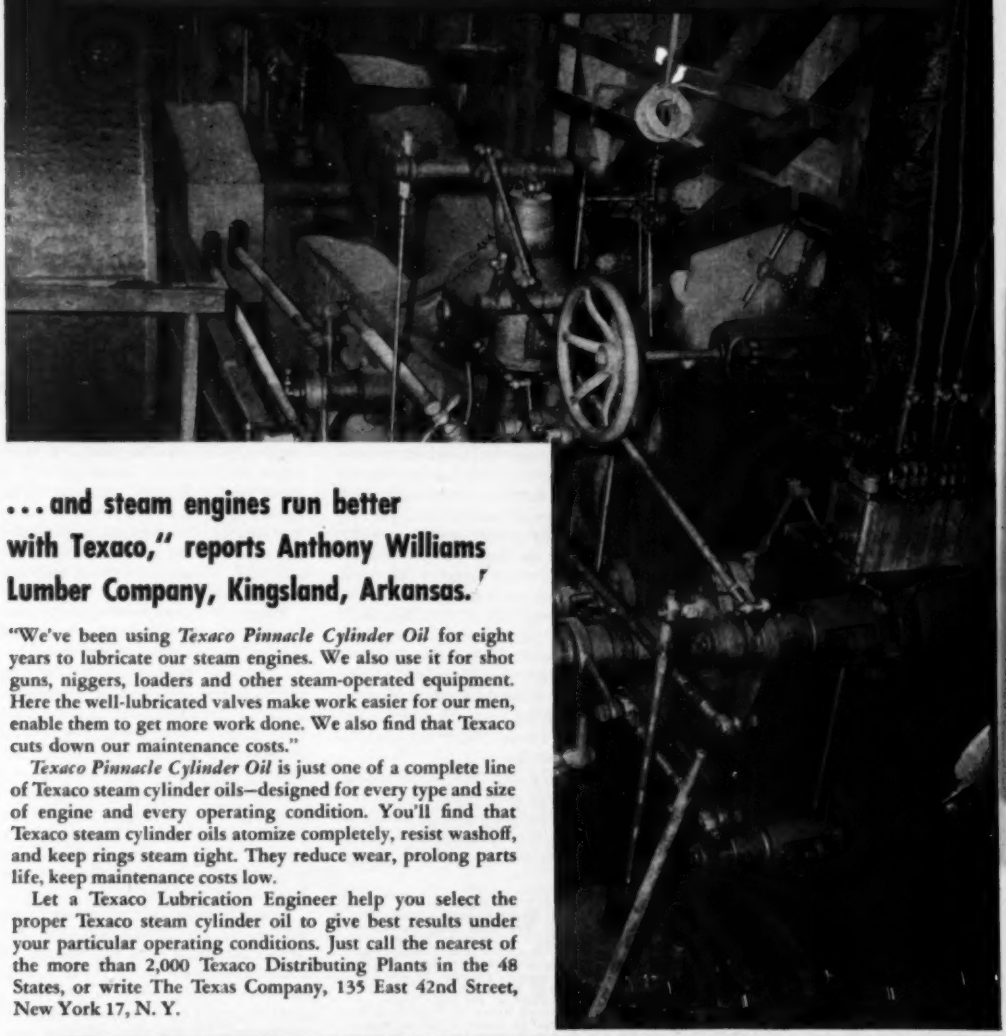
The standing operating procedure developed at this operation for truck-trailer hauling lumber is to have four trucks on the transport project and the fifth truck-trailer unit in the shop to receive its due in service and maintenance, or for repairs when needed. A. C. Lighthall, Jr., president of Oregon Lumber Co., attributes to this service-maintenance program, and the personnel carrying out the program, much of the success in keeping the per-ton-mile costs to a minimum.

Between trips each truck stops at the shop for refueling and any minor mechanical needs that are noted. Two or three trucks are greased during the night after they arrive at the shop.

The company has extensive underroof truck-trailer shop facilities, having appropriated a part of the large buildings used for the railroad carwhacking and roundhousing. In the truck shop are parts storage facilities, power machinery, extensive

(Continued on Page 120)

"OUR SAWYERS GET MORE WORK DONE...



...and steam engines run better with Texaco," reports Anthony Williams Lumber Company, Kingsland, Arkansas.

"We've been using *Texaco Pinnacle Cylinder Oil* for eight years to lubricate our steam engines. We also use it for shot guns, niggers, loaders and other steam-operated equipment. Here the well-lubricated valves make work easier for our men, enable them to get more work done. We also find that Texaco cuts down our maintenance costs."

Texaco Pinnacle Cylinder Oil is just one of a complete line of Texaco steam cylinder oils—designed for every type and size of engine and every operating condition. You'll find that Texaco steam cylinder oils atomize completely, resist washoff, and keep rings steam tight. They reduce wear, prolong parts life, keep maintenance costs low.

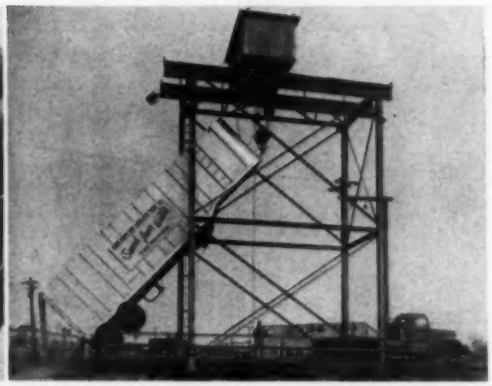
Let a Texaco Lubrication Engineer help you select the proper Texaco steam cylinder oil to give best results under your particular operating conditions. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.

TEXACO

TEXACO Steam Cylinder Oils

FOR EVERY OPERATING CONDITION

TUNE IN . . . TEXACO STAR THEATER starring MILTON BERLE on television every Tuesday night. See newspaper for time and station.



Close-up of chip loading facilities at Wauna Lumber Co., Wauna, Ore. Showing how a ten unit chip trailer is quickly unloaded at the Longview Fibre Company's plant, Longview, Wash., by means of an Ederer hoist unit. This is one of 11 185 h.p. White trucks and 30 10 unit chip trailers. the chip carrying trailers can be loaded on both sides of platform. 15-ton hoist unit. showing the Link-Belt Co., travel and tripper mechanism. Note that

CHIPS...

THE GREAT NEW BONANZA OF THE FOREST INDUSTRIES

Converting lumber by-product wood into chips for the pulp and paper mills is rapidly becoming of major importance in the forest industry. Although this means of processing the lumber waste wood into utility material—entirely removing it from the "waste" category—has mushroomed since World War II, only a small portion of the potential available from the sawmills has yet been tapped. A recent industrial survey[1] of the inland Umpqua river basin, in Oregon's Douglas county, found that this area's sawmill by-product (based on 1950 lumber production) holds promise for supplying wood material to fully support a mill making 200 tons of kraft pulp per day.

A few Northwestern lumber manufacturers in the most favorable position were selling clean mill wood to pulp mills some 30 years ago, this wood converted to chips in the receiving organization's chipping facilities. Subsequently chippers were installed at a few sawmills—in most every case at lumber plants located close to the pulp mills, tributary to most favorable transportation, or common ownership of the lumbering and pulping plants.

Recent years, and especially the past several months, have brought rapid acceleration of chipping at the Pacific Northwest sawmills. The The trend is also developing in the South and the Lake states. Behind this industrial transformation lie changes within the pulp and paper industry and several important pertinent economical factors bearing on both pulp, lumber, hardboard and veneer-plywood industries.

Douglas fir wood can now very successfully be used for production of a great many grades of both bleached and unbleached kraft pulp, largely the result of developments during the past decade. Bleached kraft pulp made of Douglas fir wood is substituted for bleached sulfite pulp made of hemlock, thus in general leaving the hemlock species for use in sulfite pulp where Douglas fir cannot be used.

Prior to the last war some of the region's pulp and paper organizations operated on wood obtained in log form in the open market. Until then lumbermen in general found the "pulping" species unattractive, especially in smaller sizes, to their prime objectives. Consequently a great many lumber manufacturing firms had an abundance of the "pulping" species for disposal in the open log market, the sale of which returned to seller little more than incurred costs.

The non-timber owning pulp manufacturers have since concerned themselves with providing wood resources for their plants by buying timber lands and timber stumpage. Also the operators holding some (but insufficient) timberlands augmented their supply by purchase. While the pulping interests were seeking out pulp timber for purchase, plywood-veneer interests sought peeler type timber, and lumber manufacturers scrambled for sawlog timber. The result: Timber available for purchase tapered off rapidly.

Consequently each of these three timber-hungry groups became less particular about type and species of timber they were willing to buy, well knowing that neither of the non-suitable types could more readily be exchanged for the desired type and species than same could be obtained by purchase either as logs or standing timber.

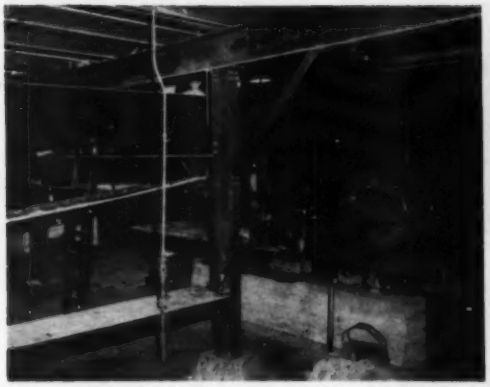
Well known to persons concerned with these three industries, the price of timber and logs pyramided.

Wood Purchases Mount

Although the Pacific Northwest

1. *Economic and Industrial Survey of the Inland Umpqua Basin, Douglas County, Ore., with Particular Emphasis upon Forest Resources and Their Utilization*, published by Roseburg, Myrtle Creek and Riddle Chambers of Commerce. Excerpts from this report: "In the case of Douglas fir the manufacture of kraft paper could be an outlet for large quantities of available waste . . . The North Umpqua River at Winchester has an ample supply of clean water to support a 200-ton pulp and paper mill . . . In addition, 460 tons of pulp chips will be necessary. On the average this quantity of chips develops from every million bd. ft. of logs cut in sawmills in the form of slabs, edgings, and mill trims. Based on the estimated 1950 log production of 750,000 M bd. ft. in the Inland Umpqua Basin, the area has a potential of twice the required quantity of waste wood in the sawmills alone."

This study concerns that inland portion of Oregon's Douglas County between summits of Coast and Cascade mountain ranges, drained by North Umpqua and South Umpqua rivers and upper part of Umpqua river.



View in the Oregon-American Lumber Corporation's chipping plant Vernonia, Oregon, showing the 66" Sumner chipper driven by a 300 h.p. G. E. Synchronous motor. Note chipperman and the short chute to chipper.

Chips ready to leave the Goodman Lumber Company's sawmill, at Goodman, Wis.

pulp industry currently owns more managed timberlands than at any previous time, raw material wood purchases are mounting. Behind this lies the multifold objective of keeping company-owned timber in reserve to considerable extent, stave off use of company-owned timber until the young growth (of which there is a large amount) approaches optimum harvest size, and to currently obtain wood at lowest unit cost.

In the Oregon-Washington region, for many years the nation's highest in lumber production, are literally hundreds and hundreds of sawmills and many plywood and veneer plants, all producing some sound wood not usable in the prime product—lumber or veneer-plywood.

Plywood production, reportedly hitting 55 million feet per week in August, is headed for even larger potential. Four more plants will be in production by end of 1951, hiking total producing plants to 74. A half-dozen plants under construction are to start peeling early in '52.

However, some enterprising firms have progressively installed facilities for using 100% of the lumber or veneer wood residue and bark. At least one large organization has, through persistent engineering and research, developed specialty processes and equipment for converting bark and miscellaneous wood to specialty utility products. Several other lumber and plywood manufacturers use all the by-product wood and bark by converting to hog fuel (either marketed as such or used in company power plant), domestic fuel, and processing to manufactured specialties such as handles, lath, toys, etc.

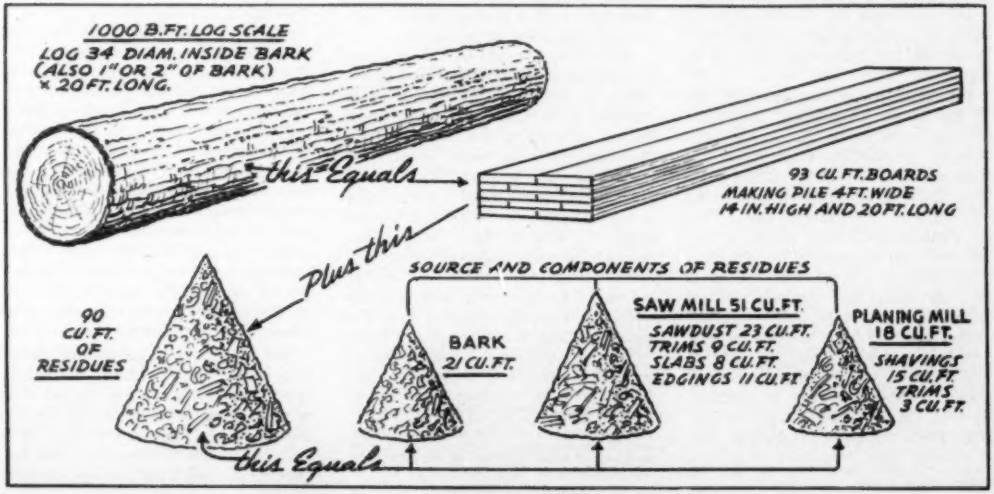
Firms using all of the bark and wood are on the increase, but still constitute a minority of the industry.

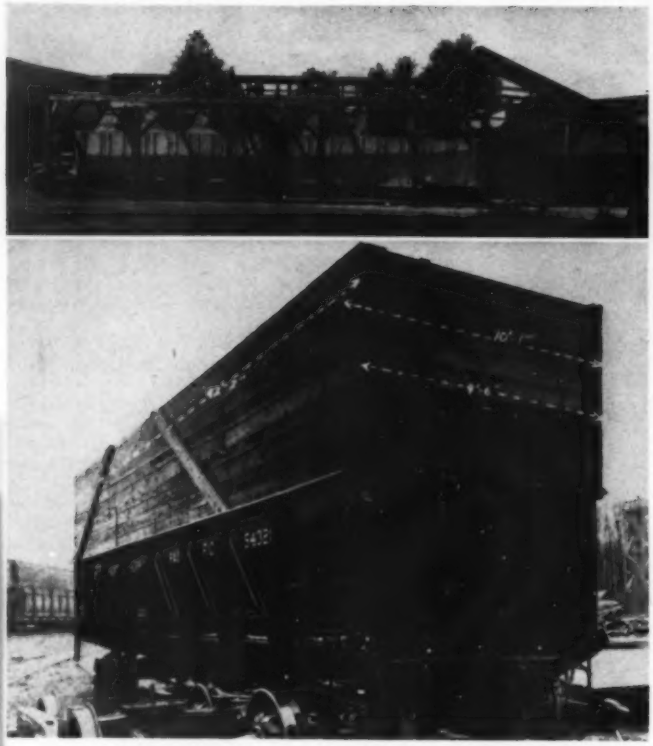
Wood residues of sizable magnitude develop rapidly in the manufacture of lumber. A one-thousand board foot log sawed into lumber cuts out approximately as 93 cu. ft. of boards and 90 cu. ft. of wood and bark residues, according to data determined by a study of 29 Douglas fir mills[2].

For more detailed volume data of the various components, a 1000-foot log is here graphically appraised as converted to lumber.

Excluding bark from consideration, the source referred to indicates that 69 cu. ft. of residue wood result from every 1000 fbm log scale when processed to finished lumber; 51 cu. ft. per M from sawmill processing alone.

According to findings of J. B. Grantham, chief of wood technology section, Oregon Forest Products Laboratory, 50 to 60 percent of slabs, trims and edgings from fir region sawmills are usable for chipping without facilities for removing bark





Top: Truck loading stand for four trailers at Shepard & Morse Lumber Company, Westport, Oregon. Bottom: 40-ft. Gondola Chip car (19.675 units); this type supplied by Northern Pacific Railway Company, Spokane; Portland & Seattle Railway Company, and Union Pacific Railroad Company.

—14 to 17 cu. ft. (solid wood) per M ft. log scale. Some authorities think a higher percentage of slabs, etc. are usable for chips.

Figuring a chip unit (200 cu. ft. bulk volume) equal to 67 cu. ft. of solid wood[3], the amount of residue wood available at the average of these 29 studied mills would approximate 23/100 unit chips per M ft. log scale.

However, a top executive of one of the larger Northwest chip-purchasing pulp firms states that the amount of residue wood resulting from manufacture of 1M ft. log scale into lumber "varies over extremely wide limits". He further says, "We have made surveys in plants where the recovery appears to be less than one-tenth of a cord per thousand feet log scale, and we are getting chips from one plant where the recovery is about four-tenths of a cord per thousand board feet log scale."[4]

His above observations refer to plants without barking equipment. He told THE LUMBERMAN of one large plant which is producing seven-tenths of a cord of recovered wood per thousand feet log scale where all of the logs are barked.

Although not precisely correlated mathematically, it has been found that sawmills set up to extensively utilize lumber by-product wood by chipping produce a net of somewhat less (but higher grade) lumber than would otherwise be obtained.

To utilize sawmill conveyor wood in form of chips requires as a minimum a chipper, a conveyor from chipper to a single car (or truck), means of moving the car, and two workmen picking clean wood from conveyor and tossing these pieces directly into the chipper. From such a rudimentary set-up, installations range to the elaborate where the wood is barked (either in log or slab form), large pieces of wood from the refuse conveyor are reduced by bolter to suitable chipping size, the fines and shorts are separated from the longer chipping stock by spike separator rolls—which also straighten out the longer pieces before reaching transfer taking them to bolter, slab barker, or chipper, and extensive loading facilities which may completely eliminate moving the receiving carrier during loading.

2. Voorhies, Glen. *"Inventory of Sawmill Waste in Oregon"*, Eng. Exp. Sta. Bul. 17, Oregon State College, Corvallis, Ore.

3. Jenkins, J. H. *"Sawmill Waste and Its Utilization in British Columbia"*, B. C. Forest Service Bulletin 83.

4. According to Pacific Northwest Forest and Range Experiment Station data, a cord measure of wood is equal to approximately 1.2 chip units in bulk form.

Chip Transportation

Chip transportation between supplier and purchaser plants may be by rail, scow or truck. According to chip purchasers, transportation by rail is usually cheaper than by truck and their experience indicates that trucking of chips beyond 40 or 50 miles is not economical if there is practical means of getting rail transportation. However, it is almost impossible to use rail transportation at some operations because of the physical make-up of the individual plant. Large 35 ft. trailer bodies, with 10-unit (half a railroad car) capacity, have been developed for use in conjunction with heavy gasoline or diesel tractors. A fleet of 11 White trucks and 30 trailers is owned and operated by one chip purchaser in Columbia river area to augment the rail-transport chip purchases.

On Vancouver Island a contractor is hauling chips 60 miles from sawmill to pulp mill with a fleet of three trucks attached to specially designed 35 foot long trailers capable of carrying 10 units (18 tons).

Chip unloading from rail cars at the consumer plants is by either of two general methods. At some plants the chips are sucked from the cars through cyclone separators that discharge to conveyors where the chips are taken into the plant or into storage. The other system involves either bottom-dump gondola cars or box cars which have been equipped with multiple doors on both sides. Both types are equipped with angle-iron plows or "Disturbers" in the bottom of the car, with suitable apparatus to pull these plows back and forth in a manner which causes the chips to avalanche out—either through the bottom dump discharge in the case of the gondola cars, or to discharge through the doors in sides of the box cars.

The method of unloading chips from the 10-unit trailers has been fairly well standardized. Front end of the trailer is elevated, the trailer pivoting on a bar at the back end and chips flowing from the trailer by gravity as the front end is further

elevated.

In some cases pulp manufacturers are financing the capital investment required for producing chips at the sawmill or veneer-plywood plant. In at least a few cases the ownership transfers to the lumber or veneer firm, the payment accruing with manufacture and sale of chips, the agreed selling price geared to this capital purchase plan. Other lumber and veneer firms take care of their own financing, owning all the production facilities.

Chipping Costs

A generalization of typical chipping installation costs at veneer plants or sawmills: Veneer chippers are the simplest to install. The cost of such installations might range from $17,000 to $25,000, depending on whether loading-storage bunkers are necessary and also depending on the extent of conveying system necessary to get to the interplant transportation facilities. The power involved is small, in the magnitude of 50 to 75 h.p. Moderate size chippers for the chipping of sawmill waste, employing approximately 200 h.p. motor power on the chipper, might involve an expenditure ranging from $30,000 to $50,000, depending again on the conveying system involved.

Installations for larger mills, involving chippers with disc diameters of between 70 and 80 inches and involving around 300 h.p., could cost from $60,000 up, depending on the complexity of the installation and whether provision is made for future expansion, slab barking and other refinements.

Typical labor costs might be as follows: The veneer plant chipper installations are cheapest of all to operate, requiring one or two men per shift. The small blockwood chippers used in smaller sawmills, involving perhaps 200 h.p. (64" to 68" disc diameter chipper), involves from 4 to 7 men per shift. It would be difficult to predict at random the labor requirements for the large chipping plants in which circumstances vary widely.

Other costs of operation involve power, maintenance, chipper knife replacement, knife grinding, depreciation, etc., the major items of cost being power and depreciation.

Some pulp manufacturers participating in the chip purchase program require the supplier firm to screen the chips, other buyers do their own screening. One reason for this variance is that some pulp firms' screening facilities are located immediately behind the plant's chipper, while others screen chips as they are removed from storage.

Chip consumers point out to THE LUMBERMAN another important reason for asking the chip supplier to do the screening. They say, "If the chips are transported any appreciable distance, the large material that could be screened out at the producing plant (and will have to be screened out at the receiving plant and degraded to hog fuel) takes up room in the transportation equipment that should be occupied by usable chips and, in effect, causes the purchaser to pay freight on hog fuel instead of on chips."

Veneer plants are in a particularly advantageous position as far as condition of the wood to be chipped is concerned, both in veneer and core log form. In each case the wood is bark free, thus entirely eliminating any additional barking equipment or processing. Also, the suitable chipping stock is not engulfed in sawdust, bark, and other foreign material, thus simplifying the chipping. Additional handling, segregating and processing equipment for chipping at a veneer plant is small. Behind the clipper all of the veneer going into plywood panels is normally pulled from the transfer and the clippings remain on the belt to discharge in a central conveyor, there concentrating green veneer suitable for chipping.

Comparatively recent expansions of Pacific Northwest pulp and paper production, both kraft and sulfite processes, have upped demand for pulpwood of all types. Douglas fir, and even pine and cedar, are now marketed to pulp manufacturers, as are the more widely recognized West Coast pulp woods—hemlock, white fir, spruce.

Shipping Chips by Railroad

Obviously it can be deemed economical to transport chips at least 200 miles by rail as a pulp manufacturing organization located on the lower Columbia river is putting in a chipping plant in Eugene, Ore., for converting wood from local sawmills into pulp chips.

A California firm, one of the largest consumers of wood chips in the West have sources of supply as far as 350 miles by rail from its mill.

While carrying on industrial survey of chipping potentials, THE LUMBERMAN was told by a railway freight spokesman that the railroads do not make a profit on transporting pulp logs, chips, or hog fuel; that rates are intentionally kept low as possible to keep the manufacturers supplied with raw materials. He states the pulp and paper industry provides more than a small amount of the railroads' business in the Northwest and it's to the railroads' advantage to assist in maintaining production.

Chip car capacity ranges from "16 to 20 cords", a load of chips based on 18-unit minimum. Incidentally, the railroad quotations, sizes and rates, become confounded by cord and unit measures, the two terms seemingly used interchangeably at times.

The Oregon intrastate rail freight scale for chips and hog fuel have been developed on hauls from 5 to 400 miles. For the 5-mile haul the rate is $1.48/unit, for 400 miles, $7.37/unit. Washington intrastate rates, set up for 10 to 500 mile haul, range from $1.70 to $7.06 per unit. A 3% federal tax is added to these intrastate freight rates and a 6% increase in base rates is expected at any time. Interstate rates, plus 6% and 3%, are $1.77 per unit for haul of 10 miles or less, and $7.39 per unit for 500-mile haul.

Throughout this region hemlock chips are in short supply. Furthermore, of the waste manufacturers processing this species into lumber, but few have undertaken chipping as means of waste salvage or utilization. Perhaps the all-important reason for not so doing is that sulfite mills cannot use Douglas fir chips and many of the lumber manufacturers have not become concerned with taking necessary measures to keep the species entirely separate.

However, some mills making both Douglas fir and hemlock lumber are successfully carrying on complete and effective species segregation by running just one species at a time—in some cases operating but one shift on pulp species before returning to the generally more abundant Douglas Fir.

Too much stress cannot be placed on making CLEAN chips of HIGH quality. Dirty chips are strictly taboo to the pulp manufacturers—huge investment has been made in this field to keep the manufactured products at highest possible quality, an objective which can't be economically achieved when the raw material wood (chips) contains dirt or other foreign materials. Chips with cleanly cut, non-bruised ends and of uniform length are highly desirable. How long these should be appears to be debatable. Chip length specifications vary somewhat depending on the individual mill's requirements. Generally the specified length is ¾" or ⅝".

CHIPPING AT A SAWMILL

In conjunction with manufacturing quality Douglas fir and western hemlock lumber, Santiam Lumber Co. has attained complete wood utilization at its Sweet Home, Ore. plant. Lumber residues, including slabs, edgings, trims, sawdust, shavings and bark, here go into any of several uses to obtain highest utilization of the various residues resulting from the manufacturing operations.

This organization's Sweet Home plant was destroyed by fire in 1945 and subsequently rebuilt in 1945-46 as 160M lumber manufacturing operation.

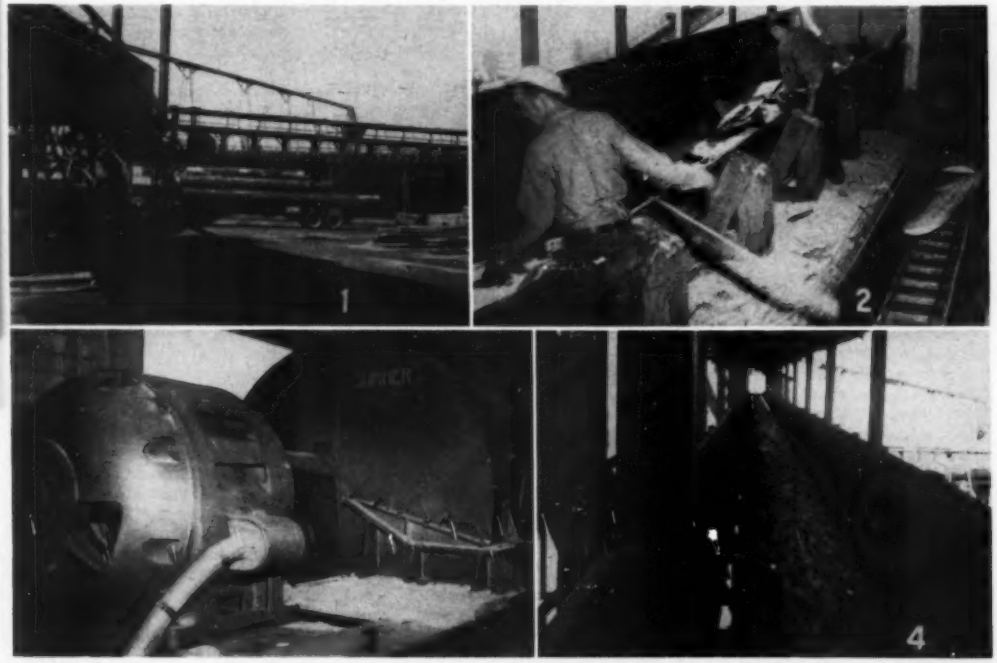
In laying out the new plant, considerable interest and planning was devoted to the extensive utilization of wood residues. However, recent additions of manufacturing facilities at the plant have further increased utilization to the extent that no wood wastes result from the manufacturing processes. This latest addition consists of complete processing, transportation, and handling facilities for converting clean wood of both species into chips for pulp and paper mills.

Prior to making chips for the pulp mills, wood residues from this mill were used as raw material to operate a lath mill, broom handle factory; converted into block fuel, hog fuel used as fuel in the company's power plant for generating 3000 k.w. electric power—about 1500 k.w. used to run the plant and rest supplied to Mountain States Power Co.—and hog fuel marketed for industrial and heating purposes.

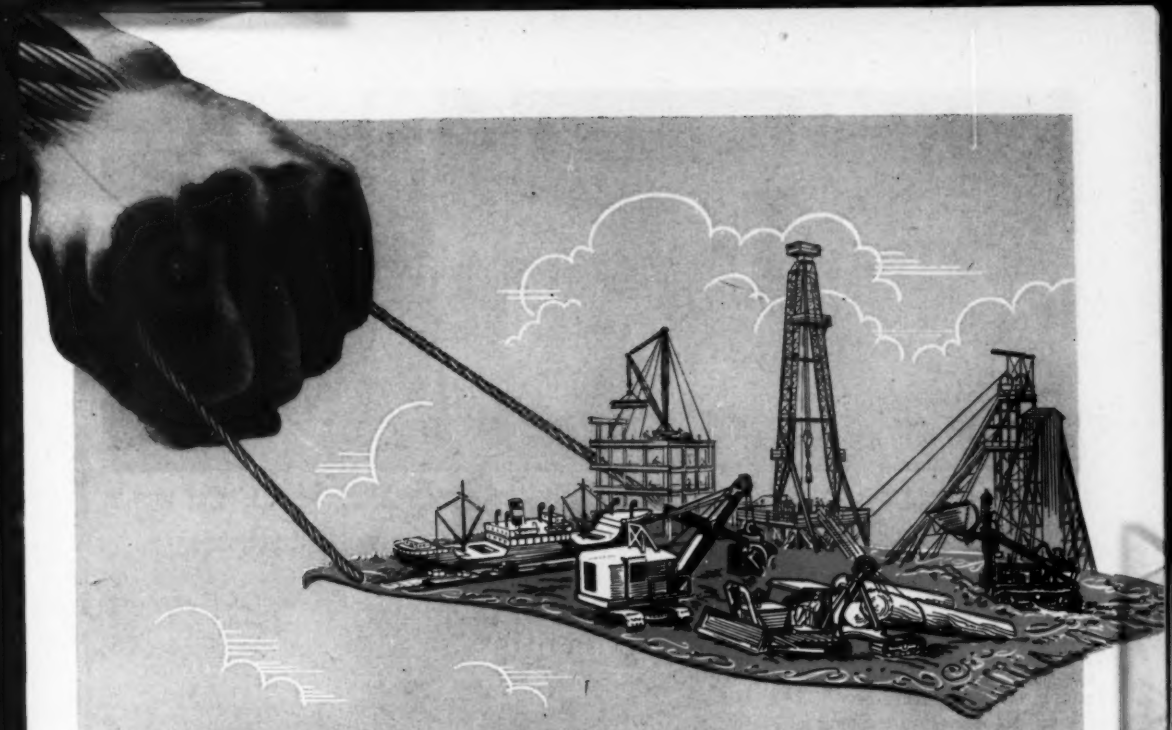
Even though this utilization program provided means for converting nearly all of the plant's miscellaneous wood to the several utility forms, some wood was disposed of by burning because hog fuel was not marketable in areas tributary to Sweet Home in volumes proportionate to the amount of residues that were available for hogging.

During the early part of 1951 facilities were installed for converting bark-free residue wood—which normally would have been hogged—into pulp chips. Essentially this required a chipper, facilities for transporting clean wood to the chipper, and for transporting the chips from chipper to receiving rail cars. Of course this required considerable machinery and supplies, but foresight of the company executives and managerial personnel in planning and building the new plant minimized expense of this subsequent chipping installation by allowing for possible additions. Room for the new Sumner chipper was available alongside the Sumner hog that was a part of the mill built following the fire; some of the additional conveyors for handling chips were superimposed over the hog fuel conveyors.

According to Walter R. Leisy, manager, this chipping installation



CHIPPING RESIDUE WOOD AT SAWMILL OPERATION OF SANTIAM LUMBER CO., SWEET HOME, ORE. 1—Chip and hogfuel system from chipper-hog house, at extreme left, to loading both chips and fuel into rail cars on the respective sidings at right. The chip conveyor at left was superimposed on the hogfuel conveyor framing and the chipper installed adjacent to the hog. 2—Clean wood in conveyor leading to the hog is removed by four pickers and tossed into adjacent parallel conveyor onto Chain Belt Co. H122 Rex chain taking the wood to Sumner chipper. 3—Sumner 6-knife 66 in. chipper powered by 200 h.p. 600 r.p.m. General Electric motor. 4—Goodyear Tire & Rubber Co. 24 in. rubber-covered belt, on Bodinson roller-bearing idlers and troughing rolls, transporting chips to loading area.



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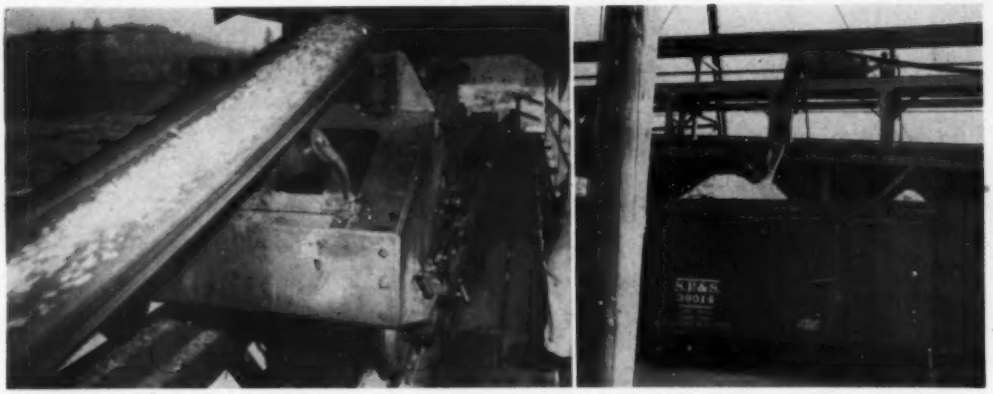

Left: Chips are deflected from Goodyear belt to rail car by Link-Belt friction-drive belt tripper. This machine riding on 25 lb. rails, travels full length of 3-car siding loading chips in each segment of the cars. Friction drive off the conveyor belt moves the tripper. Right: Chips from the belt conveyor loaded into open-top cars by Link-Belt tripper.

cost nearly $50,000. Since going into production last April, the addition has enabled the plant to manufacture and ship about five carloads of chips per day—getting two to three carloads of chips per shift and operating on 2-shift schedule.

With the addition of chipping facilities, the production of hog fuel and chips became balance, according to Mr. Leisy. In general, chips and hog fuel are produced in about equal quantities and disposal by burning has discontinued. He anticipates holding to the present hogging-chipping rates unless slab barking facilities are added. To date this possibility has not been finally decided.

At the Santiam plant six employes per shift are required for operating the chipping department. These consist of four pickers, one chipper operator, and one man tending to loading chips into rail cars—he also takes care of loading hog fuel.

The pickers, stationed alongside the refuse conveyor leading from sawmill to hog, remove bark-free wood from this conveyor and toss it into the paralleling conveyor leading to chipper. The chipper is a new 66" Sumner machine powered at 600 r.p.m. through direct coupling by a 200 h.p. General Electric motor which is equipped with starting compensator.

Chips feed by gravity from chipper to a 24" Goodyear Tire & Rubber Co. belt conveyor which deposits them on another such belt taking chips to the loading area. A Link-Belt friction drive tripper, operating in conjunction with this final belt, diverts the chips to a chute directing the chips into rail cars. The tripper rides on narrow-gage tracks using 25 lb. rails. The machine is moved by lever control which brings a friction drive roll to bear on the conveyor belt, thus moving the tripper forward or backward along the tracks above the chip-receiving rail cars which set on a 3-car spur built especially for chip cars, each holding about twenty 200 cu. ft. units of chips.

Experience gained from this installation has indicated that chip chutes should have at least 45-degree slope to prevent hangups.

The chipping department is completely equipped with sprinklers as is rest of the plant.

Some sawmill operators manufacturing lumber of more than one species have been reluctant to adopt chipping as a means of increasing utilization because the pulp mills require complete segregation of Douglas fir chips from hemlock, spruce and white fir chips. The Douglas fir species, suitable for making kraft pulp, cannot be used in the sulfite process as are these other three species.

Segregation is accomplished at this plant by running but one species at a time. One or more shifts will be run on a given species before changing, thus making complete segregation practical. This same procedure was followed at the Sweet Home plant even before adding the chipping department.

The organization's chips are purchased by Crown Zellerbach Corp., the hemlock to CZ's Lebanon mill and Douglas fir to the Camas, Wash. operations.

A list of equipment and machinery used in the chipping department follows:

One 66 in. six-knife Sumner chipper

One 200 h.p. 600 r.p.m. G.E. motor with starting compensator

620 ft. of 24 in. Goodyear Tire & Rubber Co. rubber-covered belting

One Link-Belt friction-drive belt tripper

250 ft. of H-122 Rex refuse chain (mfd. by Chain Belt Co.)

Three 5 h.p. G. E.-Pacific gearhead conveyor motors

One 10 h.p. G.E.-Pacific gearhead conveyor motor

Two 9-tooth chain-drive sprockets complete with $3\frac{7}{16}$ in. shafts and four Dodge-Timken bearings

64 Bodinson 24 in. (length) x5 in. (diam.) roller bearing troughing rolls

24 Bodinson 24 in. x 5 in. roller bearing idler rolls

Two 24 in. x 26 in. steel conveyor pulleys

Two 18 in. x 26 in. steel conveyor pulleys

Four Dodge-Timken medium duty roller bearing pillow blocks

Four Dodge-Timken protected ball bearing screw take-ups, $2^{15}\frac{}{16}$ in. diam. by 18 in. travel

Two 24 in. idlers for H-122 chain

Three 20 in. idlers for H-122 chain

240 ft. of 25 lb. railroad rail for the tripper

2 sets Simonds chipper knives

T-18 Alloy Steel conveyors feeding to and from the chipper were built in company shop.

One 9 tooth chain drive sprocket complete with $2^{15}\frac{}{16}$ in. shafts and two Dodge-Timken bearings

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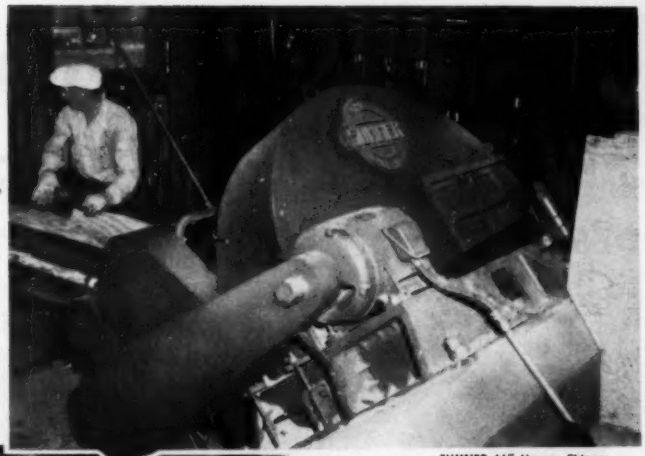

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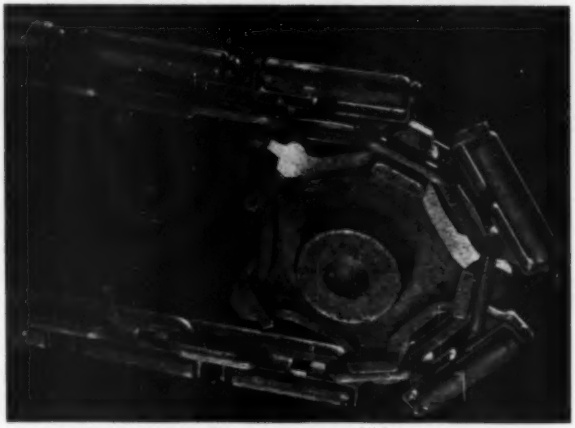

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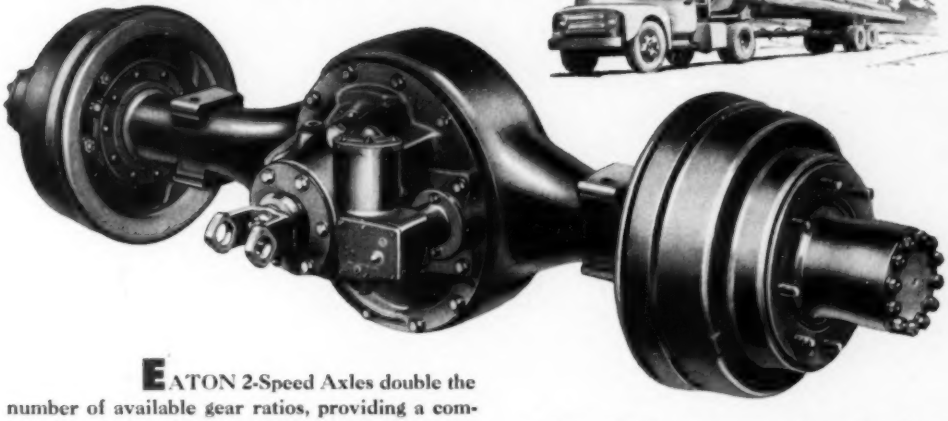

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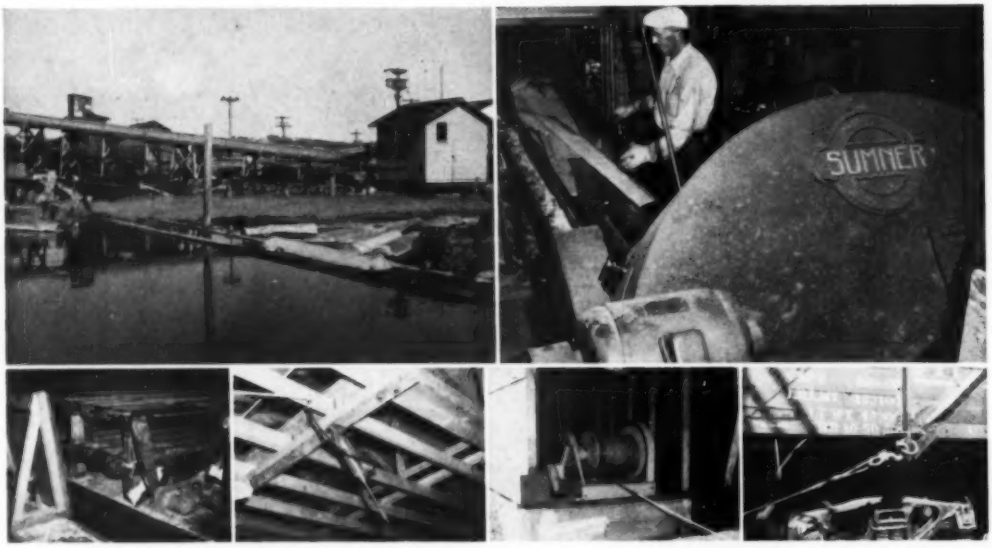
Chipping at a Plywood Plant



Upper left: Chipper shed at right. Railroad cars being loaded at left. Main plywood plant at extreme right. Upper right: One man operation. Note G-E Control panel in background. Sumner chipper can be raised or lowered in the steel guide grooves bolted into the cement foundation. Bottom, left to right: All green veneer waste at this point drops onto the conveyor belting leading to the chipping department. Logan air cylinder used to lift the heavy roll feeding veneer into the chipper. A Link-Belt fabricated winch, used in spotting railroad cars, is push button controlled. Special cable hook on last railroad car of a series being filled with veneer chips. The cars can be spotted precisely.

Economically speaking, Aberdeen Plywood Corp. is well pleased with its recently constructed facilities for converting veneer waste into chips for Longview Fibre Co. paper making. Previously all surplus waste above fuel needs went into local commercial fuel channels.

Vern Nyman, manager of the Aberdeen, Wash. plywood plant, reports great satisfaction with the improved utilization aspect and smooth operation of the new chipping department. Built at a total cost of approximately $30,000, the department produces 2 carloads of chips per day, 20 units to a car, from green veneer waste produced in 24-hour operation of the plant (plant rating: 7 million sq. ft. per month on a 3/8" basis).

It takes little imagination to marvel at the mechanical simplicity and perfection of the operation. One man is able to stand before a set of push-button controls and operate the entire department. A mirror set at the proper angle gives him continuous visual information on the heignt of chips falling into the railroad car from the conveyor belt. As required, he pushes a button and a Link-Belt fabricated winch pulls the train of cars forward the desired amount. This is accomplished through a wire rope connection to a cable hook on the last car of the train.

A Sumner Iron Works 66 inch veneer chipper connected by multiple V-belt drive to a 50 h.p. Allis-Chalmers induction motor produces uniform 3/4" chips. Veneer waste from the green end is conveyed to the chipper on a wide rubber belt motivated by a 5 h.p. Allis-Chalmers motor. Electric controls are centralized in a General Electric control panel. A Logan air cylinder, activated by push button, controls the lifting of the live roll feeding the chipper. Ample use is made of Link-Belt rolls, drives, gear motors and roller chain at various places.

Although the Douglas fir chips must eventually be screened, no screen is installed at Aberdeen Plywood Corp. This operation is done at the paper mill.

Sawmill Doubles Its Chip Production

Willamette National Lumber Co., Foster, Ore., has recently modernized and expanded its chipping plant which utilizes wood residues from the sawmill.

Chipping has been carried on here since the plant was first built and went into production in spring of 1947, shipping hemlock chips to Publishers' Paper Co. at Oregon City and Douglas fir chips to Crown Zellerbach Corp., Camas, Wash.

The modernization of chipping department, which approximately doubled the output, included installation of spike-roll section for removing fines and short blocks, a 66" bandsaw bolter, new chip-loading system, and siding facilities for eight rail cars to handle one day's (2 shifts) chip production.

Formerly the chipping stock was picked from refuse conveyor enroute to the hog, heartwood going directly to chipper and the barky wood first going to slab barker and then to chipper.

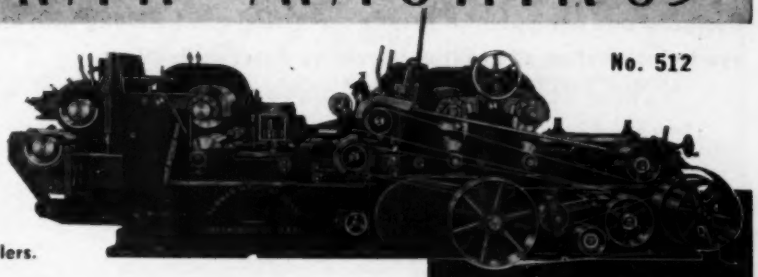
Now the mill refuse passes over spike rolls, the fines and shorts dropping into conveyor leading to a hog, and larger pieces transported to a short section of roof-top chain transfer which terminates at longer section of roll-top chain transfer. Stock of three sorts is pulled enroute—rejects for the hog, large pieces for the bolter, and barky slabs. Clean wood

(Continued on Page 148)

NEWMAN MACHINES

Newman

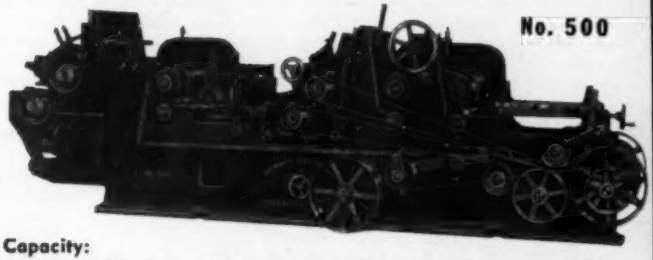
No. 512



Capacity: 16" and 24" wide, 8" thick.
Speeds up to 325 feet per minute.
8" dia. cutting circle.
Six 12" dia. feed rolls.
Single and double profilers.

BALL and ROLLER BEARING PLANERS AND MATCHERS

No. 500



Capacity:
14" and 24" wide, 6" thick. Speeds 40 to 200 feet per minute. 7" cutting circle. Six alloy steel feed rolls. High carbon special alloy steel cylinders. Single or double profilers.

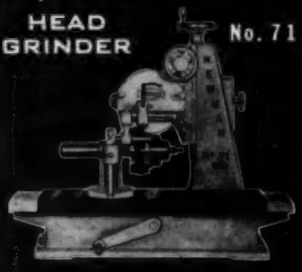
ORDER NOW FOR EARLY DELIVERY

Ball and Roller Bearings

ALL NEWMAN cylinders or heads are DYNETRICALLY BALANCED insuring an accurate and superbly finished product.

The ball bearing NEWMAN 71 (shown below) will grind all sizes of cutter heads. Table is 33" long by 9" wide with horizontal travel of 25" and is heavily ribbed to maintain accuracy over entire travel. Maximum cutter head swing is 11".

HEAD GRINDER No. 71



No. 8-B PLANER, MATCHER AND MOLDER

Unsurpassed for work in small and medium mills

No. 55 AUTOMATIC PINEAPPLE FEED TABLE

The NEWMAN 55 feeds stock automatically to high speed planers and matchers up to 450 lineal feet per minute. Capacity: 30" wide, 8" thick. All adjustments and controls are centrally and conveniently located.

The NEWMAN 8-B planes 22" wide and 8" thick, joints 4" thick and will match 14" wide. 6" diameter feed rolls. Speeds of 30, 50 and 75 feet per minute.

MAY WE SEND YOU FULL DETAILS?

NEWMAN MACHINE COMPANY, INC.
GREENSBORO, NORTH CAROLINA, U.S.A.

New Long-Bell Sawmill

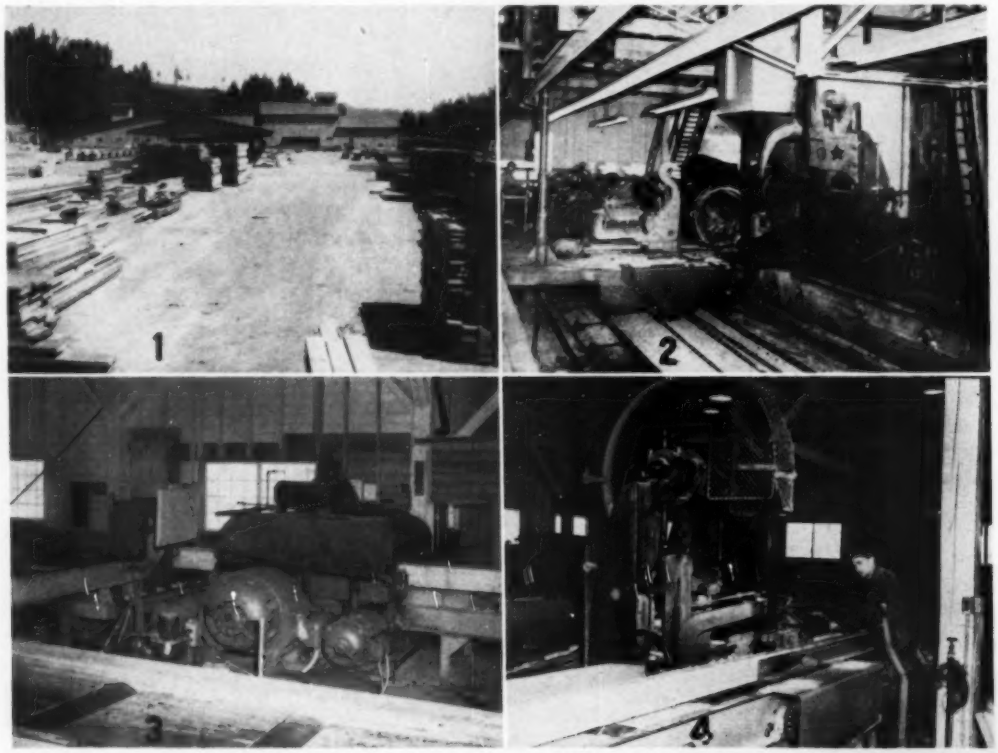
Designed and equipped for speedy processing and handling with an eye to installation of facilities providing closer utilization.

Late last July the new steel and concrete sawmill of Long-Bell Co. at Vaughn, Ore., went into production—almost precisely two years following destruction of the previous mill by fire. At that time the sawmill burned but other plant components including office, power house, dry kilns, planing mill and shop were saved. Reconstruction included a modern 150M sawmill, large crane shed and loading dock, and will ultimately include a new planing mill. During the past summer three additional Moore dry kilns were added to nearly double kiln drying capacity, making a total of 7 Moore kilns.

According to George S. Hays, general manager of Long-Bell's Vaughn division, the newly constructed sawmill was designed for speedy processing and handling and laid out to fit into the company plan for additional utilization facilities which may subsequently be added.

An elaborate fire protection system installed at the plant consists of a 2,700,000-gallon water reservoir, located on an adjacent hill a few hundred feet above the sawmill; the reservoir supported by natural springs and two 1,000 g.p.m. pumps (one steam and the other electric) adjacent to power plant to pump from the 15-acre log pond; a water-supply pond in addition to both reservoir and log pond; and the entire plant is protected by Viking automatic sprinklers. Tests of the fire protection system show very high water pressure from the reservoir at the mill—140 p.s.i., just double the pressure of the Portland city fire protection water system.

The sawmill sets 1200 ft. from the power plant, the latter receiving fuel from both sawmill and planing mill. All wood and bark sawmill residues are transported by belt conveyor to power plant in form of hog fuel and sawdust for utilization in generating steam-electric power. The sawmill is entirely powered electrically. However, some of this electric power

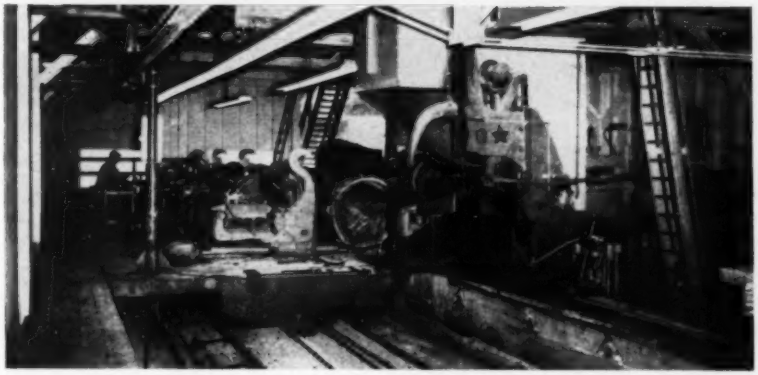


1. New 150M sawmill of Long-Bell Lumber Co. at Vaughn, Ore., and portion of the hard surfaced lumber yard. 2. Filer & Stowell processing machinery at front end of the mill, including 9 ft. band headrig powered by 300 h.p. G.E. Motor, and steel carriage powered by G.E. Amplidyne carriage drive. 3. Filer & Stowell 12 x 60" edger with the new F65 hydraulic set works and variable speed feed. A 300 h.p. G.E. motor drives the saws and 20 h.p. G.E. motor powers feed. 4. Yates-American 54" band rip-resaw with line-bar feed table.

AMONG MANY OF THE WORLDS LARGEST LUMBER MANUFACTURERS

a Decided Preference HAS BEEN SHOWN FOR

FILER & STOWELL MODERN SAWMILL MACHINERY



FOR INSTANCE . . . LONG-BELL LUMBER CO. . . .

after using **Filer & Stowell** equipment in many of their mills in the South . . . installed **Filer & Stowell** machinery in their West Fir mill, Longview, Washington, in 1923 and their East Fir Mill, Longview, in 1925.

★ *Now...* **AT THEIR LATEST MODERN SAWMILL**

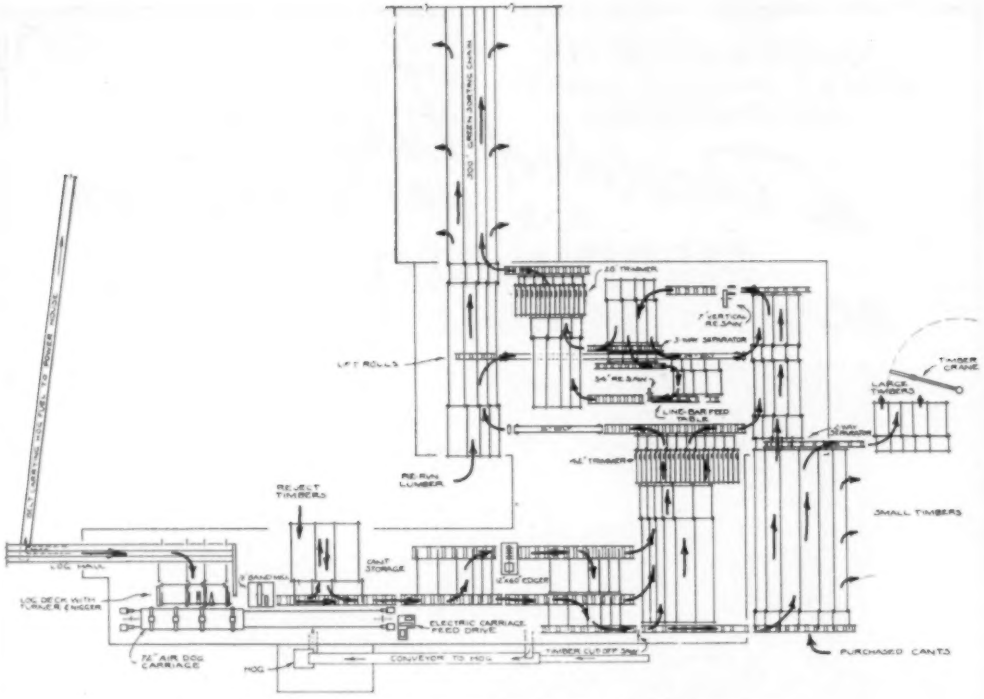
AT VAUGHN, OREGON, they have again shown their preference for Filer & Stowell machinery.

Needless to say THE FILER & STOWELL CO. is most appreciative for this renewed confidence in its equipment by one of the world's outstanding lumber manufacturers.

THE FILER & STOWELL CO.

MILWAUKEE (7), WISCONSIN

MANUFACTURERS OF COMPLETE LINE OF HEAVY HIGH GRADE SAWMILL MACHINERY



Flow diagram of the new Long-Bell Lumber Company's Vaughn Division, Eugene, Oregon.

is utilized to run two heavy Chicago-Pneumatic compressors furnishing a total of 1350 cubic feet of compressed air for use throughout the mill.

Sawmill processing machinery units includes: Filer & Stowell 9-ft. band headrig; Filer & Stowell carriage with steel frame; 12 x 60 inch edger with Variable speed feed; with new hydraulic set works; 62" hog; and 7 foot vertical resaw; two Prescott Iron Works selective mechanical-lift trimmers, 42 ft. and 28 ft. machines; Yates-American 54 in. resaw-ripsaw.

The pond, with capacity for 4½ million feet, has a 16 ft. Baier dozer-boat for handling floating logs. Here the logs are cut to length for manufacture by an L-M Equipment Co. electric-powered chain saw using Atkins chisel-bit chain, and enter the sawmill by Esco manganese steel bullchain log haul transporting the logs over a public road separating mill and pond. Enroute, the logs pass through an effective log washer using 8 Rex nozzles, water for which is furnished at 850 g.p.m. under 100 p.s.i. pressure by multi-stage turbine pump.

The front end of mill between bullchain and carriage has an air-

Bucking logs to length in 15-acre mill pond with L-M Equipment Co. electric driven chain saw. The unit has 84" bar, using Atkins chisel-bit chain powered by 10 h.p. Sterling motor.

R. H. Adams head filer, sharpening Simonds sliver-tooth band headsaw with Hanchett grinder.

WIRE ROPE

ROEBLING ALL-PURPOSE SLINGS with the Tapered Sleeve Splice come to you ready for the job. They cost less than tucked splices . . . have the full strength of the rope. Send for the full story.

You'll save time and cut costs with ROEBLING rope

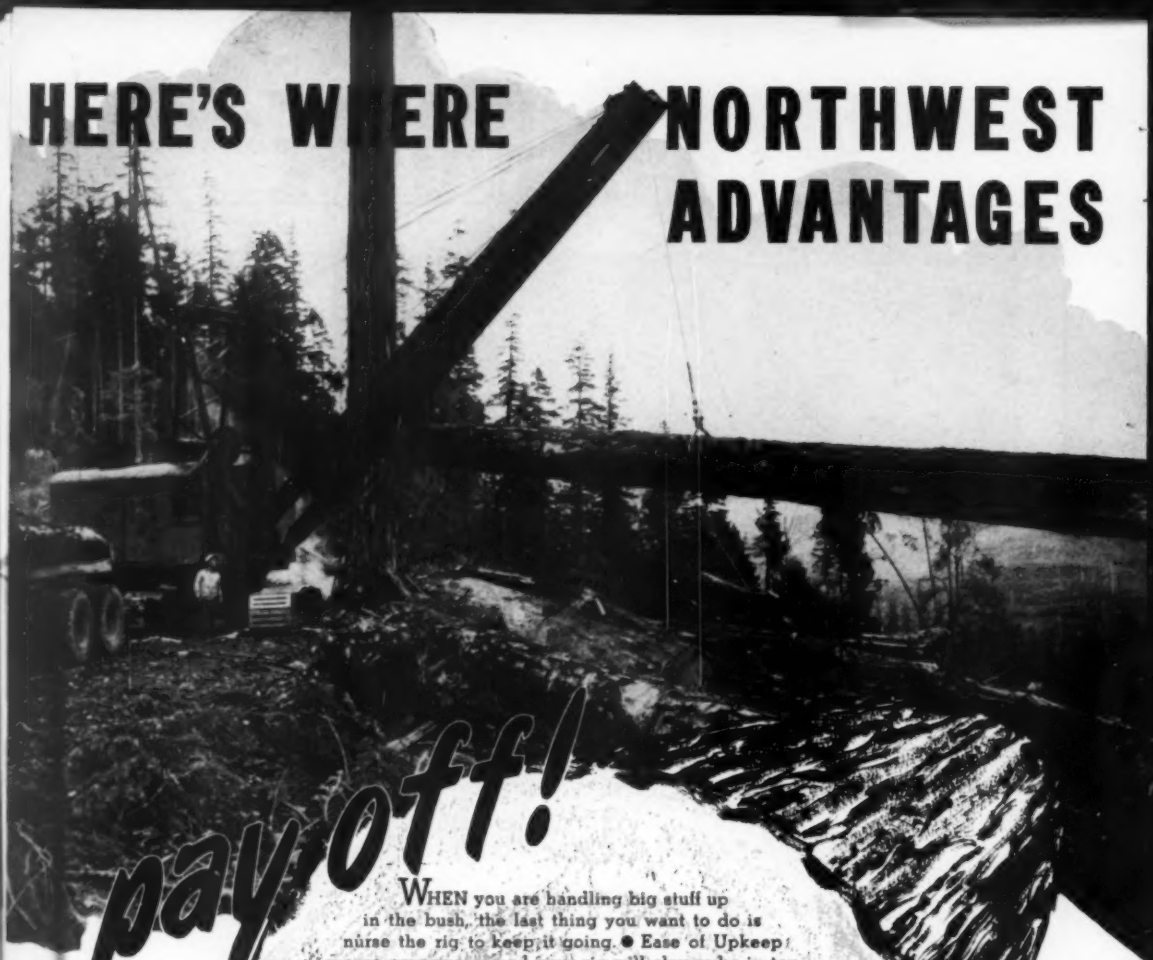
SPEED AND DOLLAR SAVINGS are more important than ever in the logging industry. One way to save time and expense is to specify Roebling Preformed "Blue Center" Steel Wire Rope. Here's a tough rope that stands up under shocks, strains and abrasion. It's preforming always assures maximum handling ease and much smoother performance on the job.

Roebling makes a full line of wire rope. Have your Roebling Field Man recommend the *right* ropes for your requirements. And for longest life, get his advice on the correct use and maintenance of wire rope. John A. Roebling's Sons Company–San Francisco–Los Angeles–Seattle.

ROEBLING

Atlanta, 934 Avon Ave ★ ***Boston,*** 51 Sleeper St ★ ***Chicago,*** 5525 W. Roosevelt Rd ★ ***Cincinnati,*** 3253 Fredonia Ave ★ ***Cleveland,*** 701 St. Clair Ave, N.E. ★ ***Denver,*** 4801 Jackson St ★ ***Detroit,*** 915 Fisher Building ★ ***Houston,*** 6216 Navigation Blvd ★ ***Los Angeles,*** 216 S. Alameda St ★ ***New York,*** 19 Rector St ★ ***Odessa, Texas,*** 1920 E. 2nd St ★ ***Philadelphia,*** 230 Vine St ★ ***San Francisco,*** 1740 17th St ★ ***Seattle,*** 900 1st Ave, S. ★ ***Tulsa,*** 321 N. Cheyenne St ★ Export Sales Office, ***Trenton, N. J.***

HERE'S WHERE NORTHWEST ADVANTAGES pay off!



WHEN you are handling big stuff up in the bush, the last thing you want to do is nurse the rig to keep it going. ● Ease of Upkeep means proper care and your rig will always be in top shape. The oiler doesn't shirk part of the job to get down the hill. ● With the "Feather-Touch" Clutch Control you are free of delicate and complex control mechanism that needs special adjustment. ● With Uniform Pressure Swing Clutches you have the smooth swing that makes spotting the big loads easy without loss of time and you are free from the jerks and grabs that set the load swinging. ● The Cushion Clutch makes snaking in the big ones easier and gives you time to get the clutch out before the overload strains something when the tongs "hang up." ● And, perhaps most advantageous of all is Northwest Differential Steering with positive traction on *both* crawlers even while turning. When you send a Northwest up the hill you know it is going to get there—and back.

Maybe that is why Weyerhaeuser Timber Company owns 11 Northwests. Let us give you more details.

NORTHWEST ENGINEERING COMPANY
1510 Field Building
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NORTHWEST

NORTHWEST SALES OFFICES: SEATTLE, WASH.—1234 Sixth Ave. So.
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Left to right: George S. Hays, general manager of Vaughn division, Long-Bell Lumber Co.; H. G. Kelsey, assistant vice president of Long-Bell who succeeds as general manager of Vaughn division with retirement of Mr. Hays at termination of current year. T. E. Hoppenstall, Long-Bell vice president in charge of engineering, and Joseph Strohle, construction engineer, the two laying out and designing Vaughn mill; W. H. Rambo, industrial plant engineer, Portland, handled detail engineering; G. H. Holmberg, represented Rambo's firm during construction as superintendent.

operated Filer & Stowell log loader, Simondson type F&S air-operated log turner, and air-operated Filer & Stowell Hill nigger. The head sawyer operates both the turner and nigger with the same lever through combination control.

Filer & Stowell carriage with steel frame, operating in conjunction with the 9 ft. band headrig, has Filer & Stowell Pacific Coast type air dog equipment, electric setworks and air-powered cant unloading flippers. Both of these prime units are powered by General Electric motors; in fact, the new mill is standardized on G.E. electric motors. The headrig is powered by a 300 h.p. motor driving through 15-strand Goodyear Tire & Rubber Co. V-belt, the carriage by G.E. Amplidyne drive. The cable drum and connecting drive-power unit are located on the main mill floor rather than below the floor as usual. Another feature of the carriage drive concerns the hook-up of wire rope to drum and carriage. Here American Chain & Cable Co. 1⅛ in. armoured wire rope, purchased from Marshall-Wells Co., connects between drum and carriage. Two pieces of wire rope are used, each doubling back; one pulls carriage forward and the other backward. Both ends of each wire rope are attached to the cable drum, each wire rope looping around a sheave at center of the carriage.

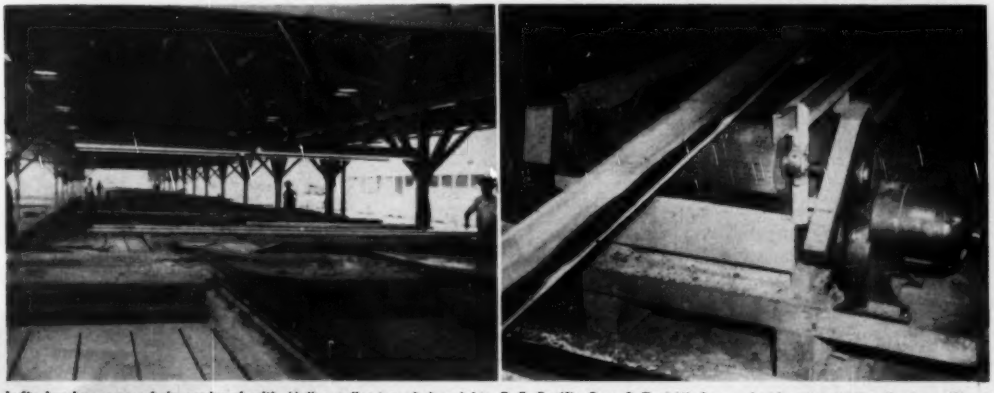
Edging facilities at this mill are of particular interest in that the Filer & Stowell 6-saw 12 by 60 in. edger is equipped with the new Filer & Stowell hydraulic setworks and variable speed feed. Both are instantly changeable. A 20 h.p. G.E. variable speed motor powering the feed has range of 550 to 1650 r.p.m. resulting in feed speeds of 150 to 450 l.f.p.m.; a 30 h.p. G.E. motor powers the saws.

The other processing machines include the 42 ft. Prescott Iron Works, Inc., Seattle, selective mechanical-

One of the Long-Bell structures, all of which were erected by the Associated Wood Products Co. of the Northwest, Portland. Note the type of truss roof developed by this company.

lift trimmer powered by a G.E. motor; 7 ft. Filer & Stowell vertical band resaw with air setworks and G.E. variable-speed feed motor; Yates-American ripsaw-resaw with line-bar type feed table, and 28 ft. Prescott Iron Works pony trimmer powered by 30 h.p. G.E. motor. Simonds saws are used in the new mill.

(Continued on Page 104)



Left: Lumber green chain equipped with Moline roller-top chain; right: G.-E. Pacific Gear & Tool Works gearhead motor driving Goodyear Tire & Rubber Co. conveyor belt, loading from No. 1 trimmer to transfer at head end of green chain.

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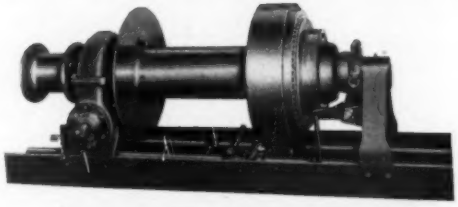
FRICTION CLUTCH WINCH

Tulsa friction clutch winches are favorites of contractors, riggers, steel erectors, pipe line contractors and public utility companies. The three-disc friction clutch and automatic worm brake assembly make these winches ideal for logging, ginning pipe, setting poles, pile driving, and raising or lowering any load requiring smooth acceleration and deceleration.

Whatever your winching requirements, there's a Tulsa Winch to do the job. Tulsa Winches are available in 28 different models, in capacities from 6,000 to 80,000 pounds and designed for use on all makes and sizes of trucks and crawler tractors.

For detailed information and prices, contact your nearest Tulsa Winch distributor or write direct to—



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DIVISION OF VICKERS Inc

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815-21 E. First Street

THE WORLD'S LARGEST MANUFACTURER OF TRUCK POWER WINCHES

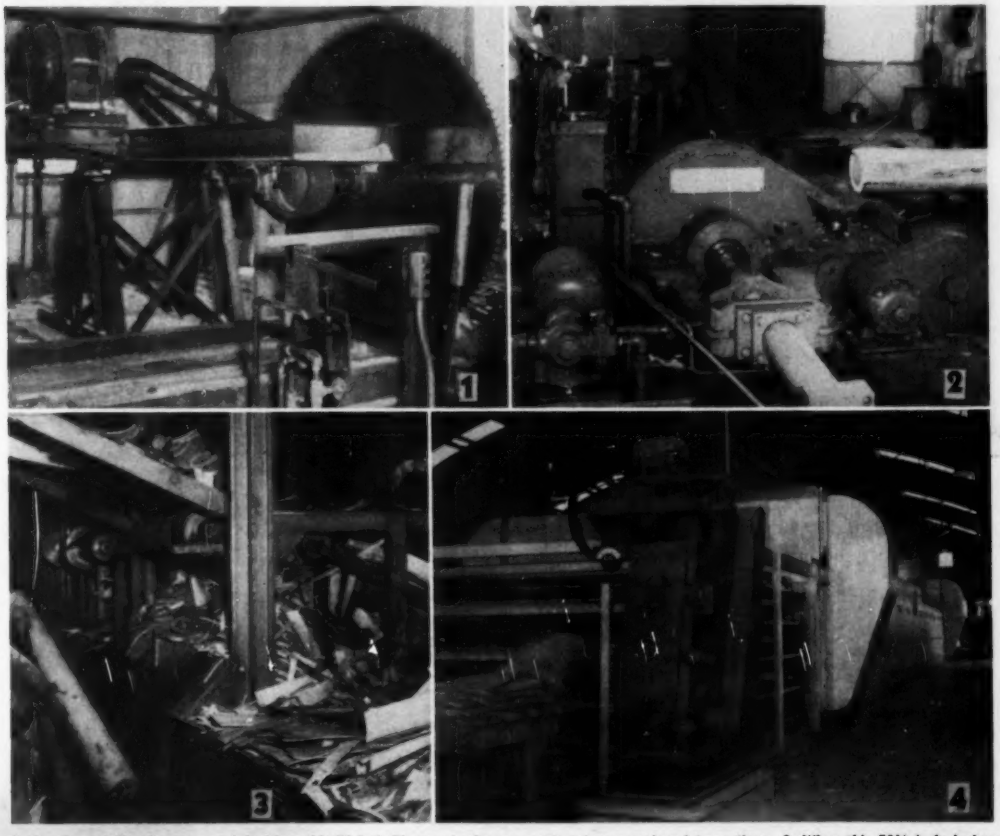
Well engineered and equipped southern veneer plant

New mill reflects careful planning and execution of a $750,000 plant improvement program.

Production in a straight line from log to dry end with labor saving equipment wherever it can be installed marks the new veneer plant of the T. R. Miller Mill Co., Brewton, Ala. The company uses the entire veneer production, passing it to storage thence to its wirebound box plant. Replacing an older layout destroyed by fire, the veneer, box and storage units at the Brewton mill reflect careful planning and execution for a $750,000 improvement program completed with the aid of Rust Engineering Company, Birmingham, Ala.

An old established company in the lumber industry, T. R. Miller Mill Co. is owner of 185,000 acres of well managed forest lands. It has an integrated operation, producing forest products in a wide range of types and uses. Divided into departments according to functions, careful accounting methods require inter-department business to be booked "at the market." John R. Miller Jr., company vice-president, is in charge of veneer and box division. Roscoe Jones is veneer mill foreman.

The fire did not destroy the vats, which are above ground level so the new structure's concrete floor was elevated to match. The front section housing the Coe drier is 120 feet long by 60 feet wide, and the lathe section 100 feet long by 80 feet wide. The roof is of abestone, siding of corrugated steel, and framing of



1. The General Electric motor at left drives this 72-inch Disston circular saw as it cuts veneer logs into sections. 2. When this 78½-inch Jackson Industries hydraulically controlled lathe finishes running a veneer block the core drops down into a chute. The lathe is driven by Westinghouse motors. In left foreground, a 10 HP. for hydraulic pump. 3. Cores are dropped through (down) the lathe into an inclined chute thence to the Jeffrey conveyor that carries veneer trimmings and cores outside of the building. Trimmings go to the hog. 4. Right hand views of the 4-deck 1000 feet per hour Coe Mfg. Co. drier.

For log cutting, you need the right kind of carriage dog.

Same way with trucks. Get one that fits the job!

Dependable DODGE TRUCKS are "Job-Rated" to carry bigger payloads!

You'll carry *more* payload per trip, make *more* trips per day with a Dodge truck . . . *"Job-Rated"* to fit *your* logging needs!

Thanks to balanced weight distribution—plus increased rear axle capacities on many models—you can haul bigger loads of logs without overloading.

The rugged Dodge engine gives you power aplenty . . . the *right* power to handle your toughest jobs on your roughest roads in any kind of weather. And you get up to 20% more horsepower than ever!

What's more, your Dodge truck will be *"Job-Rated"* throughout for top-notch economy! You'll save on repairs and maintenance with less time off the job. You'll save on gas and oil, too!

Visit your Dodge dealer soon. Ask him about a Dodge *"Job-Rated"* truck that fits *your* particular logging job . . . saves you money . . . assures *dependable service* through the years.

How Dodge trucks are *"Job-Rated"* for the logging business

A Dodge *"Job-Rated"* truck is engineered *at the factory* to fit a specific job . . . save you money . . . last longer.

Every unit from engine to rear axle is *"Job-Rated"*—factory-engineered to haul a specific load over the roads you travel and at the speeds you require.

Every unit that SUPPORTS the load—frame, axles, springs, wheels, tires, and others—is engineered right to provide the strength and capacity needed.

Every unit that MOVES the load—engine, clutch, transmission, propeller shaft, rear axle, and others—is engineered right to meet a particular operating condition.

"Job-Rated" TRUCKS DO THE MOST FOR YOU

steel.

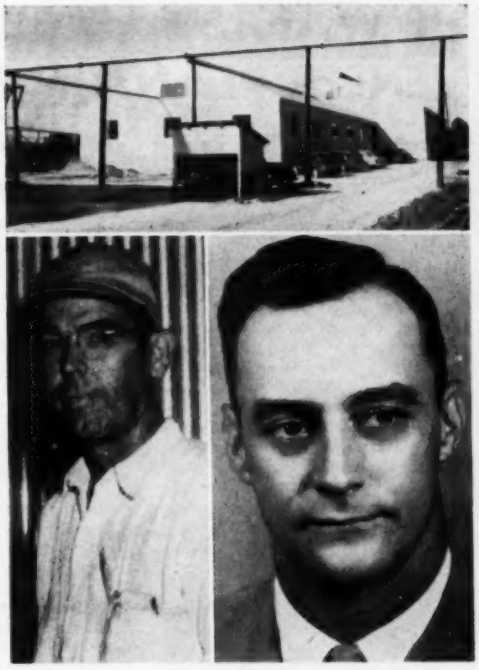
Logs are unloaded from cars or trucks into a semi-circular placed reserve stock and swung up to the log deck with a stiff-legged (spar and boom) crane activated by a two drum hoist with driving motor from Westinghouse. The hoist and sling have unusual clearance for storage. The hoist machinery and motor are in the bottom of a two story operating house. The operator, in a glass enclosed upper level, has a completely clear view of all parts of the operation.

Reaching the deck, the logs are cut to length with a General Electric motor driven Disston 72-inch circular saw, then banked in vats by size and species. Removed with the aid of a hoist, they are placed on a Jeffreys chain conveyor and moved to the lathe deck.

Peeling into green veneer is effected either with a new 78½-inch Jackson Industries hydraulically controlled rotary lathe or with a 44-inch lathe. The new unit's spindle is turned by a 75-HP Westinghouse motor. The 10-HP front carriage motor, 10-HP hydraulic pump motor, and 7½-HP rear carriage motor are from Westinghouse. The rebuilt lathe is driven by a 50-HP motor.

Cottonwood is steamed only about 3-hours and hardwoods for 12 to 14 hours. Veneer thicknesses cut include: ⅛th, 1/7th, 1/6th, 3/16th, 7/32nds, and ¼th inch. Lengths produced are from 22 inches to 74 inches; widths, 17 inches. The large lathe's backroll can cut any half inch size from 7-inches to 10½-inches. Initial production of the plant averaged about 16-M feet per day or from 75-M to 85-M feet in a 40-hour week. Normal production after suitable breaking in of crew and equipment is 100-M feet per week.

The 6½ inch gum cores are not sent to the hog but carried outside on the Jeffrey conveyor and shipped to a paper mill. The company gets about $12 per cord fob. for these of which $3 is taken up in loading cost.



Top: The veneer plant contains 15,200 sq. ft.; receives its logs at one end and ships dry veneer at the other without one-foot of retracement in process. Lower left: John R. Miller Jr., company vice-president i/c of veneer and box department. Lower right: Roscoe Jones, veneer plant foreman.

A rail car takes 12 units. Over a period of time freight rates have more than doubled, rising from $110 to $280 per car. Other hardwood cores are piled as also those parts of logs cut out as unsuited for veneer. About every other week the loader comes down from the cleat mill and picks them up.

The cleat mill is a 42-inch circular saw rig for producing material for the company's box plant. The 14-foot carriage is driven by a 75-HP General Electric motor. An International Harvester UD-24 185 HP Diesel motor drives a small gang and edge sorter.

In the veneer plant, the lathe deck is supported by 12-inch Wolmanized beams. In the space below the deck, ample provision has been made for work shop and small parts storage. The lathe deck is six feet above drier floor. Cores from the lathes are not moved out from the spindle but by special arrangement are knocked through (down) to an inclined chute feeding to the waste conveyor.

Veneer is dried in a 4-deck, 1000 feet per hour, Coe Manufacturing Co. unit. C. C. Scott was Coe installer on the job. The dry veneer is removed on pallets to storage or box plant as soon as finished.

Waste from the veneer plant is converted to boiler feed by a new 9N-38x65-24 inch knife Mitts & Merrill hog, driven by an 100-HP Westinghouse motor.

Sell Your Scrap Now

With the price of scrap at its highest historical level and with Pacific Coast steel plants absolutely dependent upon this source of raw material, now in extremely low supply, logging camps and sawmills should gather up all the old metal that may be kicking around and sell it to the junk man. There is a tremendous amount of badly needed scrap available in camps and at mills. Now is the time to sell it.

The current Coast ceiling prices for scrap in carload lots are as follows: "Steel #1—heavy melting prepared $32 per ton (gross 2240#) FOB shipping point—this means steel scrap of max. 5 feet long 18" wide and not less than ¼ inch thick.

"Steel #2—heavy melting prepared $30—same specs as above except that thickness of steel must be at least ⅛ inch.

"Coast Iron—ranges from $41 to $47 a ton gross FOB shipping point."

A roundup at logging camps and mills will reveal a tremendous tonnage of scrap. Other industries are cleaning up their scrap. The Anaconda Copper Mining Co., Butte, Mont., is reported to have shipped twelve carloads of iron and steel scrap in one recent month. The Great Northern Railway found 812 tons of dormant scrap in its first scrap hunt covering 55 repair jobs, roundhouses, yards, etc., in addition to 16,595 pounds of non-ferrous scrap, mostly copper.

If junk men cannot be interested, camps and mills should wire their steel suppliers.

HE WANTED TO BUILD THE BEST VENEER PLANT IN THE COUNTRY

Roland Carlson's new Pacific Laminates' mill at Cedar Creek, Calif., is the result of his observations of veneer plants throughout the west.

Among the new veneer mills coming into production in California this year is that of the Pacific Laminates Inc., at Cedar Creek, a few yards east of Highway 101 in the northern part of Mendocino county between Cummings and Lane's Flat. It is a wholly owned subsidiary of Sonoma Plywood Co.

Officers of the corporation are: Roland Carlson, president; Mrs. Carl Carlson, vice-president; and Mrs. Roland Carlson, secretary-treasurer.

The mill is a living, easily expanded, monument to the vision, farsightedness and hard work on the part of Roland Carlson and his late brother, Carl Carlson. Roland Carlson is well known in the plywood industry, having formerly been associated with Olympia Veneer, U.S. Plywood, Monsanto Chemical, and Industrial Plywood. The clean lines of his new mill, and its readily expandable design are the direct result of his keen observation of veneer mills throughout the West, and his decision to build the best veneer mill in the country.

Resident manager of the mill is G. A. Gustafson, formerly with the Lumbermen's Mercantile, Shelton, Wash., and in forest industries most of his life; and Jack Clark, formerly with the Hedberg Lumber Co., Fortuna; and superintendent, Industrial Plywood Co., Willits, is superintendent.

Conceived by Roland and Carl Carlson the plant size and type of construction was arrived at by the Carlson brothers as the result of conferences with their agents, the Moffett Engineering Co., Albany, Calif. The actual engineering design of the plant was done by E. O. Rosberg, C. E. Berkeley, while Moffett Engineering handled the letting of the contracts and the expediting of the entire job.

The all-steel building, in which is housed the Merritt-Solem peeler lathe, Prentice barker, and Elliott Bay clipper, is 60′ in span, 140′ in length, and has 25′ clear from the floor to the lower chord of the trusses. The steel crane runway rails of 57′6″ span are 20′ from the floor and the crane runway extends 300′ out from the building.

This 18,000 sq.ft. of log storage space is serviced by a Moffett Engineering Co. 7½ ton capacity cab operated crane. This same crane will move the logs up to the building area, where after being bucked into peeler bolts with an electric drag saw, a Moffett 3 ton capacity, floor controlled crane will take the

1. Prentice barker, built by Gunderson Bros., at veneer mill of Pacific Laminates, Inc., Cummings, Calif., 2. Left to right: G. A. Gustafson, resident manager, and Jack Clark, superintendent, Pacific Laminates, Inc., and W. E. Weyman, sales manager, Moffett Engineering Co., Albany, Calif., 3. C. Kirk Hillman 150 AC-DC drive for lathe. 4. Elliott-Bay clipper.

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Moffett Engineering Co., 7½ ton capacity cab operated crane which services the 15,000 sq. ft. log storage space at Pacific Laminates Inc. veneer mill. This crane moves logs up to mill building from the 300-ft. crane runway, where logs are bucked into peeler bolts, and then picked up by another Moffett Engineering Co. overhead crane which takes bolts to Prentice barker, and to Merritt-Solem lathe.

bolts to the Prentice Barker, manufactured by Gunderson Bros. This barker is 85 by 120.

This same Moffett crane will then take the barked bolts to the Merritt-Solem 60 x 110" lathe, which is powered with a C. Kirk Hillman 150 AC-DC variable speed drive. Simonds knives are used. Head lathe man is Walton Fessler, formerly with the Hedberg Lumber Co., Fortuna.

The use of a bridge crane allows for the unusual placement of the barker and peeler lathe in a side by side position which permits the use of but one conveyor for the removal of waste from both the barker and the lathe. This same Moffett crane will handle the shipping of the veneer at the present time.

The E. V. Prentice scraper type of log or block barker used at Pacific Laminates is 114" long by a 96" swing. The bark is removed on this machine by a 7" wide steel spade. An 8" wide rosser head is used in conjunction with the spade for barking buckskin logs. The barker is powered with a 10 HP gear head motor for rotating the log and a 1½ HP motor for the transverse travel of the cutter head assembly frame. Also a 25 HP motor is used for the rosser head.

When the barker is in operation, the log is held in chucks by means of a 10" diameter, by 18" stroke air cylinder. The pressure applied to the scraper is accomplished by a 12"x18" stroke air cylinder, which is integrally mounted into the pantograph ladder which carries the scraper spade and the rosser heads. The drive on this barker is accomplished thru means of roller chains and sprockets to rotate the log and move the carriage.

The Elliott Bay 110" clipper was installed by Ray Taylor of Seattle.

The burner is lined with fire brick and covered with concrete. Set at an angle at the base are four 12" concrete pipes which will create a whirling draft. The burner will be covered with sheet steel, tapering to 10' dia., and a spark arrester will be installed.

Plans call for the further expansion of the building itself, the installation of a tray system operation for the clipper, and quite possibly a dryer.

This planned expansion also calls for another 3 ton capacity crane to handle the clipper, dryer, and take care of shipping.

NEW COMPANY WORLD'S SECOND LARGEST IN LUMBER AND PULP

Formation of a company whose assets are probably exceeded by only one other corporation in the world's lumber and pulp industry was ratified October 22 in Vancouver, B. C., when shareholders of the H. R. MacMillan Co. voted on the merger with Bloedel, Stewart & Welch, Ltd.

The new company, to operate under the name of MacMillan & Bloedel, Ltd., as previously announced in The LUMBERMAN, will have assets totalling $103,855,000. Timber limits and land of the company are given a valuation of $34,729,000, of which the MacMillan group contributes $23,466,000. Mills, buildings, machinery, railway and logging equipment of the combined company is valued at more than $52,650,000.

H. R. MacMillan will be chairman of the board; Prentice Bloedel, who was president of Bloedel, Stewart & Welch, will be vice-chairman, with W. J. Van Dusen, previously holding the office of vice-chairman of the MacMillan company. President will be B. M. Hoffmeister, formerly president of the MacMillan company. It is understood that many of the higher ranking executives will carry on pretty much as in the past so far as their regular duties are concerned.

Percentages of the combined value of the two companies have been agreed on as 43 percent for Bloedel and 57 percent for MacMillan.

From the standpoint of the two companies involved, the merger is particularly advantageous in that their holdings complement one another so effectively. In some respects their timber is contiguous, thus facilitating effective forest management and development. The merger will also make it possible to carry out expansion of processing facilities more economically through concentration of plant. For example, instead of building a new plywood plant at Port Alberni, as the Bloedel organization had previously planned, the MacMillan plywood plant at that location is being increased. However, it is expected that the Bloedel pulp mill at Port Alberni will be expanded, the capacity possibly doubled. The MacMillan pulp mill at Harmac is now being expanded to the point where it will produce 570 tons a day, so that the new company will probably control the daily production of nearly 1000 tons of pulp daily when the program is carried out.

In a letter addressed to shareholders respecting the merger, facts concerning the operations of the Bloedel organization are published for the first time, thus having been a private corporation until the amalgamation. For instance, the Bloedel company's timber holdings are placed at 5,418,000,000 board feet, extending over a total of 308,100 acres. Net sales in 1950 were $23,171,000 and net profits $4,969,000.

The financial arrangement submitted to the shareholders was that all the issued common, preference and "B" preference shares of the Bloedel company would be exchanged for a total of 2,281,582 Class "B" shares of the MacMillan company, as follows: 1. 44.54596 of the Class B shares of the MacMillan company for each common share of the Bloedel company; 2. Two fifths of one Class B MacMillan share for each preference Bloedel share; 3. Four of the Class B MacMillan shares for each preference B share of the Bloedel company.

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says Fred Carpenter, 1896 Granada Street, Concord, California

A man starting his own business has a lot to learn. And one of the best ways he can do it is to keep his ears open when he's around the men who know. That's how Fred Carpenter, determined to make the *best* trailer buy, came to choose Trailmobile. "I heard it's the best for heavy duty work, well designed and economical to operate. And it can sure take rough roads and steep grades. Yes sir, what I heard about Trailmobile, *sold* me on Trailmobile."

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EMPHASIS ON UTILIZATION

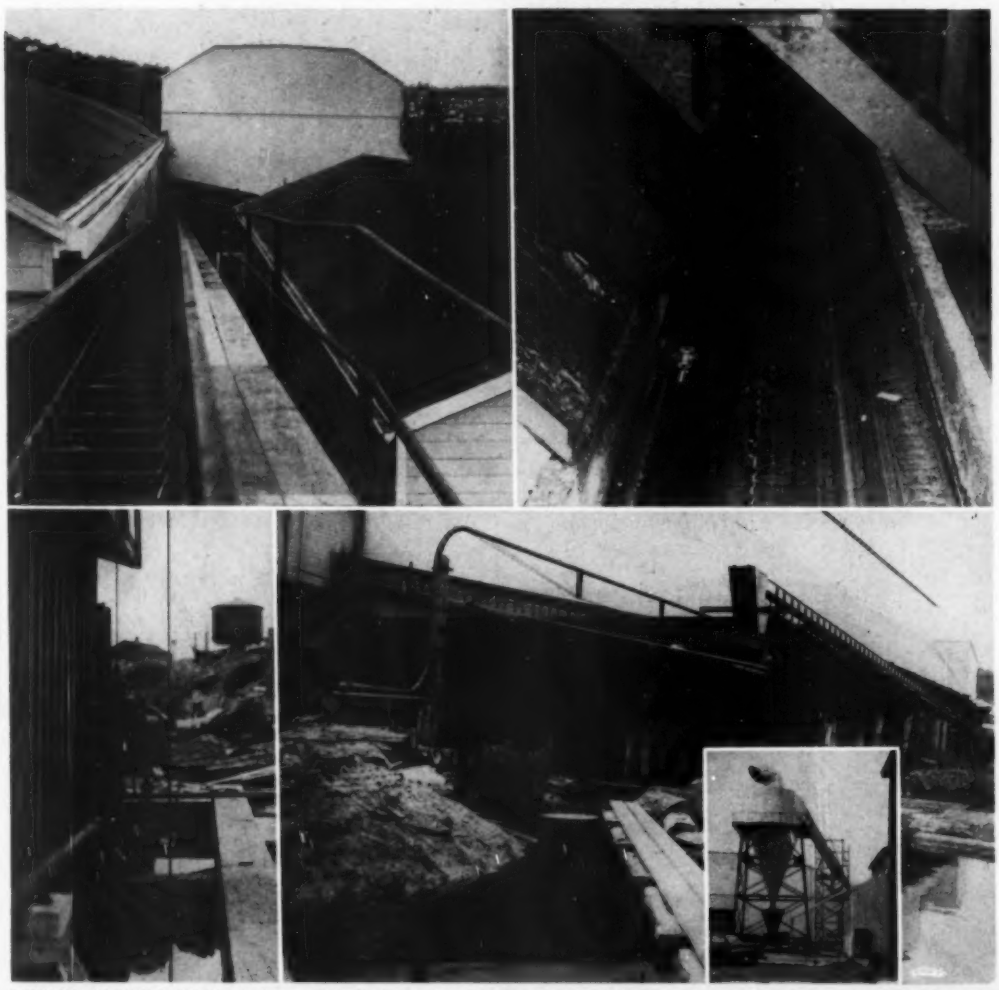
Astoria Plywood Corp., in its new plant at Astoria, Oregon, plans to use all raw material right down to the last splinter and grain of sawdust

Every once in awhile an old bromide becomes useful. Today we refer not so much to our old friend Paul Bunyan, but rather to the old "chestnut" about using everything in the forest down to the last whisper.

That's about the best way we can describe our appraisal of the newest plywood plant on the historic Columbia river—the cooperative Astoria Plywood Corporation—where waste recovery has been reduced to a fine art and where everything down to the last splinter is earmarked for something of value.

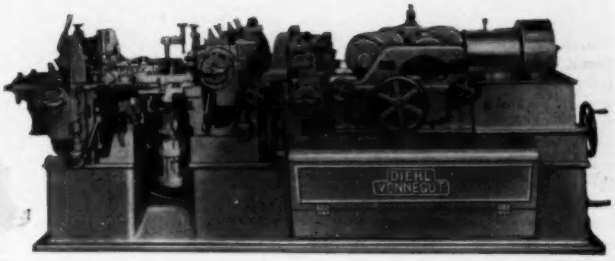
It is a plywood plant where waste material is recovered to a point where the waste is almost as important as the original plywood product. All of which is indicative of the strong trend in the forest industries, stemming from the realization that there's *profit in waste*.

In any event the waste recovery program at the Astoria Plywood Corporation plant, Astoria, Oregon, is one of the best that THE LUMBERMAN has seen. It proves that a lot of engineering know-how was



EMPHASIS ON WASTE RECOVERY: Upper left: Climbing flight of Meline conveyor chain along main part of structure moving toward power plant. Upper right: Rubber belt which conveys waste material from Coe lathe to power plant. Below, left to right: Pump which sucks sawdust from the pond cut-off saw and pumps it along into the waste recovery system; showing pipe which carries sawdust from pond and the long conveyor system carrying waste from the green and dry ends of the mill. A pulp chipping plant is contemplated. Inset: The Archer cyclone and blower installation.

TORRENTS of work...



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flow from this unbeatable combination.

Yes, unending torrents of *precision* work maintain a constant profit flow from the DIEHL DEPENDABLE MOULDERS, when fed stock ripped to size by the Super Rip Saw—the DIEHL #750.

Easy to operate, easy to change-over, Diehl-Vonnegut Moulders are the workhorses of the high speed, precision wood-working industry. The exclusive Spindle design assures highest accuracy over years of trouble-free service.

The smooth, powerful Diehl #750 Straight Line Glue-Joint Rip Saw is also tops—turns out accurate cuts for smooth feeding through moulder—day in and day out—for years and years.

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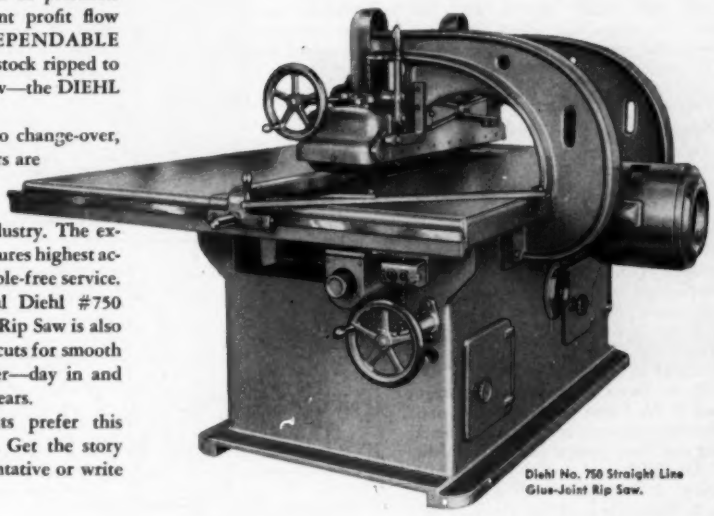
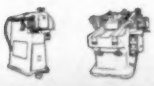


Diehl No. 750 Straight Line Glue-Joint Rip Saw.



On the Banks of the Wabash

THE G. M. Diehl MACHINE WORKS, INC.

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spent on working out a recovery system, with full use made of conveying equipment (both chain and rubber) to get the last grain of waste material into some sort of value.

Right now the waste is gathered from all sources and transmitted to storage adjacent to the steam power plant, which provides all power for the plant's operations. Realizing that such waste material at present market conditions has even greater value than fuel, the Astoria Plywood management is now considering the installation of a chipping plant. When this is completed all chipped waste (outside that required for fuel) will be sold to pulp mills along the Columbia River.

The Astoria recovery system has two component parts—exterior and interior—both joining to carry waste wood to storage for fuel consumption. The exterior system is made up of Moline Malleable conveyor chain driven by electric motors through Link Belt gear motors. This system stretches along the outside length of the Astoria structure, picking up waste from the green end as well as from the finishing section of the mill (see accompanying pictures). Funneling into this exterior system also is the sawdust from the pond saw shack, where, with the help of pumps, this waste is sucked from the pond and reclaimed.

The interior recovery system is composed basically of rubber conveyor belting (Goodyear and Thermoid), running via "ditches" in the floor and picking up waste at the lathe and cut-off saws with delivery to the chain system outside.

Left to right: George Gustafson, plant superintendent; and George Haumann, one of 200 shareholders in Astoria Plywood Corporation. Haumann formerly was with Coe Manufacturing Company and covered Northwest plywood industry.

The Astoria company is the latest Douglas fir plywood plant to go into production in the northwest. Basic equipment is Coe, including a Coe lathe, Coe clipper and Coe dryer. Globe Machine and Manufacturing Company of Tacoma furnished the hydraulic barker, trim and cut-off saws and patching equipment. Other equipment includes an Ederer cold press; Yates-American sander. According to officials a Williams-White hot press will shortly be installed.

Credit for much of the planning at Astoria goes to Norman Jacobson, well known figure in the northwest plywood industry, who is president and general manager. Vice-president is Frank Forman; secretary, Z. G. Hesselgesser; treasurer, Ed Clausius. Plant superintendent is George Gustafson. The plant has 200 shareholders.

Production started in early August, and it is anticipated that the plant will produce 3,500,000 square feet of Douglas fir plywood monthly. At the present time logs are barged from Bandon, Oregon, with some peelers being provided from the local area around Astoria. The ocean-going barges from Bandon are towed up the Oregon coast, into the Columbia River, unloaded at the port docks, and the logs towed to the Astoria plant.

Future plans, according to President Jacobson, include a second production line, installation of a core lathe, and, as mentioned previously, the installation of a chipping plant.

The Astoria plant has historical significance. It is located on the site of the old Clatsop mill—one of the well known Columbia River mills of years ago—which in more recent years was known as the O'Brien-Gram Spruce Company.

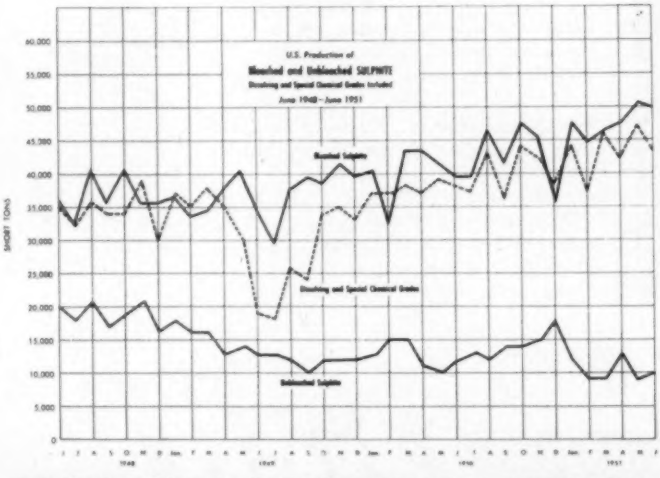
Twenty-five Year Employees Honored

Wood Conversion Company, manufacturer of Nu-Wood, Tufflex and Balsam-Wool, paid tribute to 31 twenty-five year employees at a banquet at the Kitchi-Gami Club in Duluth, in September.

The accumulated service of the 31 employees amounted to well over 700 years. The organizational meeting was the first for the Twenty-Five Year Club. The company was founded in January of 1921.

E. W. Davis, president of the firm, and D. M. Pattie, vice-president and general manager, spoke at the meeting and later passed out the awards.

Among those to receive the award were: J. D. Spencer, Myrtle Hjelm, E. S. Swanson, L. N. Harrison, M. M. Welshons, D. M. Pattie, and E. W. Davis of the St. Paul Office; A. L. Spafford, I. R. Lund, Florence Vnuk, A. F. Jenkins, A. O. Anderson, George Anderson, J. W. Nelson (Posthumous), L. R. Larson, C. E. Westlund, R. W. Ridlington, J. N. Larson, Rudar Hanson, F. A. Amlotte, J. H. Webb, Arne Bru, J. E. Anderson, F. C. Enlund, J. J. Gleason, B. A. Carlson, G. R. Norgren, and A. J. Golen of the plant at Cloquet, Minnesota; as well as H. W. Hintze of Peoria, Illinois; W. W. Craig of Milwaukee, Wisconsin; and R. W. Howard of Northbrook, Illinois.



The Buckley, Dunton Pulp Co., Inc., New York City, specialists in the sale of woodpulp and paper, among various other services, from time to time issues charts similar to the one reproduced above. These charts based on information obtained over long years of experience are extremely interesting and valuable as they indicate industry trends. Those interested can obtain more information by writing the Buckley, Dunton Pulp Company, Inc., at 295 Madison Avenue, New York City 17, N. Y.

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Pennsalt welcomed the opportunity in 1951 to ally its chemical facilities with other organizations as well as state and federal authorities, in an active campaign to control spruce budworm damage. Support from every quarter will be helpful, since this battle is likely to be long.

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TECHNIQUE OF LOGGING SMALL LOW GRADE TIMBER IN SOUTH

Left: Allis-Chalmers HD-5 tractor with sulky brings a load of pulp logs to the landing for loading on trucks. Note the Buda powered A-frame loader loading a truck at left. Right: Here is a Chevrolet truck with three cord trailer on the way to the pulp mill with a load of salvaged tree tops.

Close adherence to rational division between pulpwood and sawlogs is demonstrated by Southland Paper Mills, Inc., Lufkin, Texas, in an operation conducted in close relationship with two large lumber companies and, additionally, with interesting, efficient harvesting methods. Southland owns 150,000 acres of forest lands acquired originally from Angelina County Lumber Company (Keltys, Texas) and Southern Pine Lumber Co. (Diboll, Texas), Texas Long Leaf Lbr. Co. (Trinity, Texas) and other large land owners. The lumber companies are represented in paper company directorship.

The paper mill as yet had done no cutting on its own fee lands but derives its 225,000 cord supply from thinnings and salvage on lumber company lands, and from independent pulpwood producers. On Southern Pine Lumber Co.'s 235,000 acres the paper mill has a single contractor, J. S. Daniels, who produces the pulpwood from thinnings and salvage. Payment per cord for delivered wood for stumpage is made direct to the lumber company, the harvesting contract price to the supplier.

On the 285,000 acres of forest land held by Angelina County Lumber Co., the paper mill operates its own pulpwood show. Of total mill supply, 5 percent comes from Angelina lands, 5 percent from Southern Pine, 5 percent from Texas Long Leaf Lbr. Co. and 85 percent from outside independent producers.

The paper company's policy is to concentrate on small trees and low grade old field pine. When the company buys stumpage that includes good sawlogs, these are routed out to the sawmills. After a tree passes 8-inches DBH, if it is free of knots and straight stemmed it is worth more as a log than pulpwood; if knotty or crooked its natural destination is the paper mill. The mill's range of diameters is from 4-inch minimum to 19-inch maximum, but should you see the larger sizes passing on a truck you may be sure it is too knotty for lumber.

Where there is a mixed yield, the cutters have their identifying mark for logs they produce and on which they are paid. The sawlogs are bunched separately from pulpwood and are loaded out with standard logging equipment.

In ordinary pulpwood operations (thinning, etc.) the trees are not cut to short lengths in the woods but brought in as poles and put through a slasher at the mill. In the woods the poles are trimmed to multiples of 4-feet ranging from 12 to 24 foot length to fit the slasher.

A pulpwood crew consists of six pair of log cutters using 5½-foot cross-cut saws, six bunchers each with a work animal, an Allis-Chalmers H.D.-5 tractor (and driver) with sulky, a loaderman, a tong hooker, and four trucks with drivers. This crew delivers an average of 55 cords of pulpwood per day to the mill.

The haul to the mill ranges from five miles to 75 miles. When the distance stretches to the point that truck can make only two loads per day, an extra truck is added.

For loading in the woods, the company has a GMC 6x6 war surplus truck on which is mounted an American Hoist & Derrick drum powered with a Buda 4-cylinder 45 HP gasoline motor.

In loading, several poles are laid on the ground and the tractor deposits its load across these to permit easy slipping of the wire slings under the ends. The loader uses 6x19 Leschen Red Strand rope and sometimes 6x37. The Red Strand 6x37 is used on tractors as it does not kink as badly on the small drum. The sling is made with an open hook at the wire end that is caught back in a loop about the poles. A hand line terminating in a ring through which the load wire passes above the sling is used to shake the wire, release the open hook when the logs (poles) are on the truck.

As high as 118 cords have been pulled in one day by one tractor and sulky. Trailers used with 2-ton dual wheel trucks are of standard pole type with dual wheels.

In bringing in multiple 4-foot length poles for the mill slasher, an

Intensive salvage logging. View of a top left from logging that has been limbed for pulpwood. Not all tops have as many limbs as this which is headed for the mill. It is 20 feet long and will contain about a sixteenth of a cord. About fifteen minutes were required to limb this log.

average production of 2¼ cords per man day to the mill is realized. This is well above average southern experience in producing standard pulpwood by orthodox labor use methods.

In salvaging pulpwood from tree tops following the Angelina County Lumber Co. logging operations the delivery of the pole to the mill slasher is not practical inasmuch as some trees may yield only one or two 4-foot cuts, which would be too short to handle. By comparison, the salvaging of pulpwood from tree tops yields an average production of 1½ cords per man-day to the mill.

In the salvaging operation, the trimmers go in first to limb the top. It is bunched with animals, cut to length with a power saw, and loaded onto a company shop trailer that can carry 3-cords. The trailer is handled around the woods with a Caterpillar D-4 tractor, moving from one loading spot to another until ready for its trip to the landing along a road or good woods trail where it will be parked waiting for a truck to pick it up. The tractor picks up an empty trailer at that spot to start on the loading routine.

The salvage operation crew includes one tractor driver and his helper, four trimmers, two teamsters with a single animal each for bunching, one motor truck and three trailers. This crew will produce and deliver to the mill 90 cords per week. The work week is five days. The current operation involved an 8 mile haul, with one up to 25 miles possible with the equipment used. In the summer time, salvaging is never more than three weeks behind logging but in winter months it may run up to six weeks.

Yield from salvage is highly variable, depending upon the type of timber. In some spots where small trees are logged—(not generally)—as much wood is salvaged from the tops as the lumber mill gets in logs. On tall slender trees, the loggers go up to seven inch diameter and leave the balance. In other parts of the stand, the top may be quite limby with large knots requiring four times the amount of work. Care must be taken in limbing. The paper mill receives from 100 to 150 cords per week from salvage operation of tops.

Ernest L. Kurth, president of both Southland and Angelina County Lumber Co., is tremendously enthusiastic about the salvaging operations, constantly asking if all the wood possible from that source is being brought in. The old loggers who effectuate the policy share this enthusiasm.

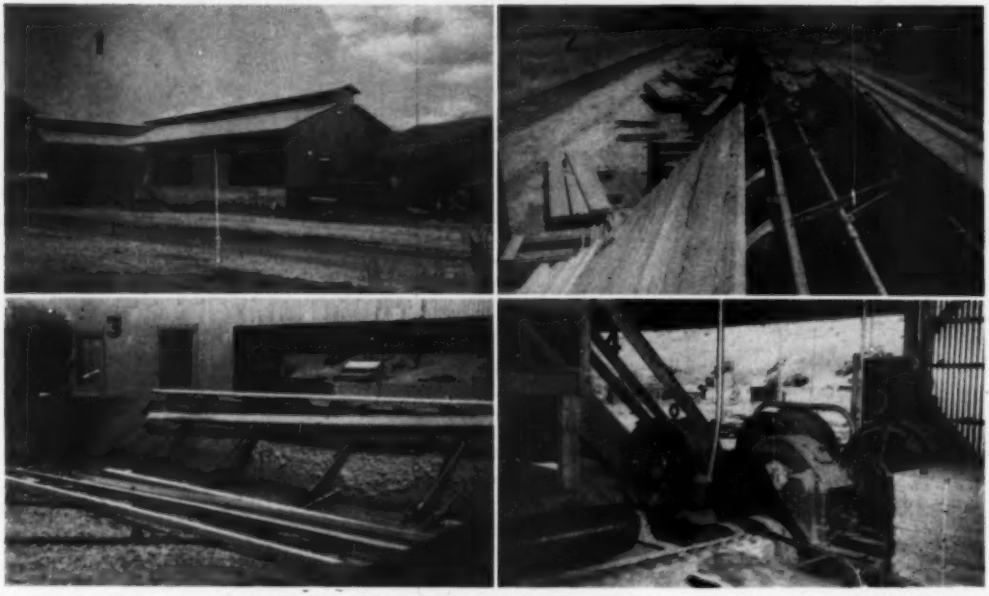
The company finds the use of the tractor and sulky or the tractor and detachable trailer for strictly in

(Continued on Page 121)

Left: Major Henry A Maas, chief of woodlands and wood procurement. Right (top) Johnnie Bates (left), wood procurement chief and (right) Hayes Smith, wood buyer and scaler. Center: T. B. (Burl) Berry (left), timber buyer and L. S. (Bingo) Milwee (right), logging superintendent. Below: M. B. Ellis, Rusk, Texas, (left) and Steve Kardell, San Augustine, Texas, (right), two big pulpwood producers for Southland Paper Co.

NEW MODERN IDAHO SAWMILL

Smith-Nielsen Logging & Lumber Company's mill incorporates new ideas in manufacturing conveying and handling equipment.



1. New all-electric SMITH-NIELSEN LOGGING & LUMBER COMPANY, Spalding, Idaho sawmill which went into production last May. 2. Three-way edge sorter. As shown, the boards move over both of the 200 ft. conveyor chains to pocket at left (foreground). When the bridging arms at left center are raised the lumber falls onto the left chain and carried out to proper sort pocket; by raising both sets of bridging arms lumber goes to right chain and out to either of 5 pockets. 3. Dipping lumber as it emerges from the sawmill in a Permatox 10-S Dowicide solution manufactured and distributed by the Chapman Chemical Co. 4. Lee F. Austin Co. electric feedworks powering the carriage. Components include 75 h.p. Westinghouse a.c. motor driving d.c. Crocker-Wheeler generator which in turn powers Crocker-Wheeler d.c. motor which drives through Link-Belt reduction gear to cable drum.

A new sawmill incorporating extensive modern facilities went into production last May at Spalding, Ida. This all-electric plant, owned and operated by Smith-Nielsen Logging & Lumber Co., sets adjacent to the Pataha Valley Lumber Co. planing mill which is operated by the same managerial personnel as that which runs the sawmill. The plant site of some 25 to 30 acres lies along the Clearwater river close to site of an historic sawmill built at Spalding in 1840. Meager records of this pioneer mill indicate that it utilized water-power facilities which were built to run a flour mill.

Henry V. Nielsen is general manager-vice president and Alvin Luhr, general superintendent of the present operation; Joe M. Smith is president-sales manager and Robert H. Anderson secretary-treasurer, the latter two men located in the organization's Spokane, Wash. office. Among key personnel at the new sawmill are Fred Fish, sawmill superintendent; Alfred Brown, chief electrician and assistant superintendent; and Leonard Bailey, head filer.

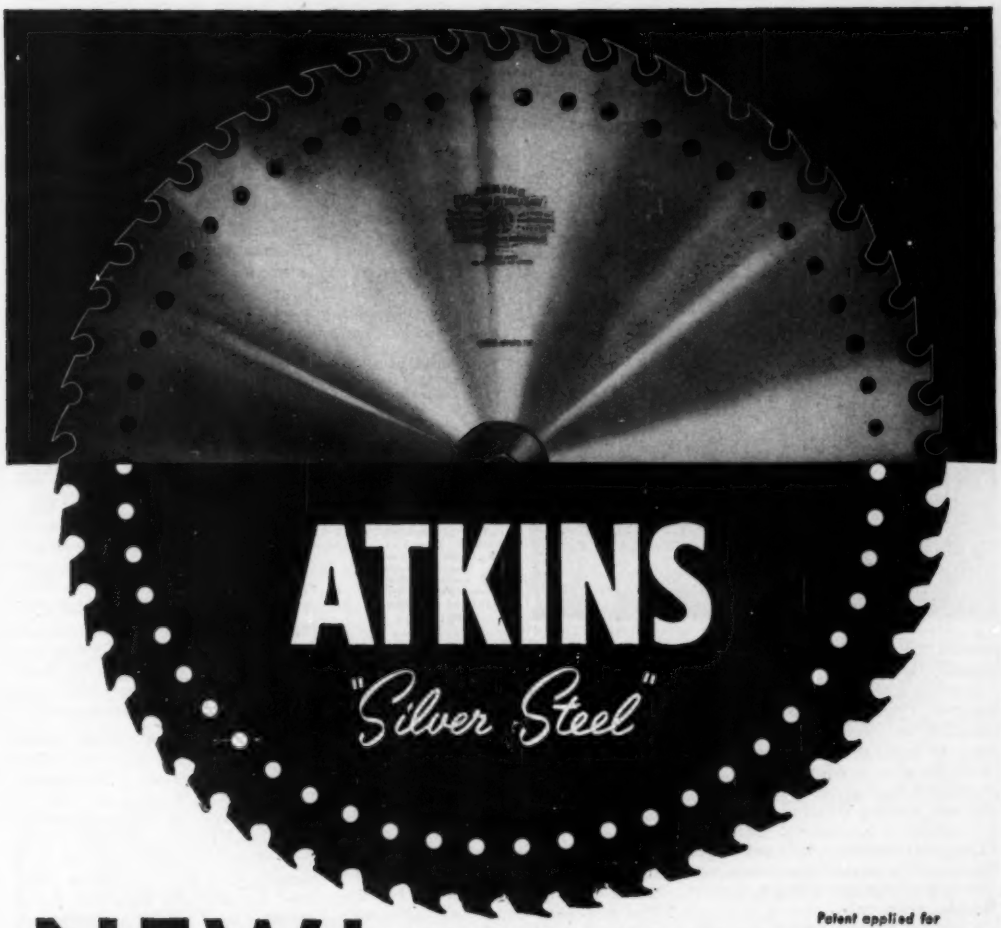
Mr. Fish, until recently operating lumber manufacturing plants of his own, functioned as construction superintendent on the new Spalding sawmill. Mr. Brown wired the mill. Both men are co-producers of "Electroset", the electric setworks used on carriage of this mill.

The sawmill, built with concrete foundation and floor, is rated at 50,000 feet per 8 hour shift; has Union Iron Works 6 ft. double-cut band head-rig—specially built with unusual clearance for sawing large logs, and powered by 150 h.p. G.E. slipring motor; UIW carriage with air dogs and the electric setworks; UIW 4 by 48 in. edger. The edger has 3 h.p. Sterling gearhead motor powering feed rolls and 50 h.p. Wagner motor driving the saws.

Carriage power is derived from a Lee F. Austin Co. electric feedworks comprised of a 75 h.p. Westinghouse a.c. motor driving Crocker-Wheeler Electric Manufacturing Co. generator which powers a Crocker-Wheeler d.c. motor. This operates through a Link-Belt reduction gear drive to power cable drum. The feedworks has shunt field control.

Much of the equipment, including live rolls and transfers between headrig and trimmer were engineered and furnished by General Machinery Co. of Portland. The fabricated reversible rolls function in separately controlled unit sections. General Machinery Co. also supplied a #45 Diamond Hog, Armstrong filing room equipment and many of the motors.

Air-activated equipment, generously used throughout the mill, is equipped with Galland-Henning "Nopak" valves and cylinders, including log-deck and nigger cylinders; on the carriage for activating dogs, taper, and cant flipper; trim saw cylinders, jump rolls, transfer chains, bumpers, edger, trim saws, and log chute kicker. A Sullivan compressor powered by 100 h.p. Westinghouse motor provides com-



ATKINS

"Silver Steel"

Patent applied for

NEW! INSERTED TOOTH MILL SAWS WITH STABILIZING HOLES

Straighter Cuts!
Better Lumber!
Less Time Off!
More Production!

Look at this saw! It's an innovation—in design, in performance! . . . Those holes in the center of each shoulder are there for a purpose—a *functional* purpose. They are *stabilizing* holes. They relieve rim strain, keep the shoulders straight, the bits in better alignment. They air-condition the rim and the body of the saw. They blow away dust—keep the log free from dust that freezes to log and board. This saw requires less up-keep, such as hammering and tensioning—and less horse power to operate!

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AAA TRADE MARK ATKINS "ATKINS ALWAYS AHEAD"

Left to right: Henry V. Nielsen, vice president and general manager, and Alvin Luhr, general superintendent, shown at end of the dining room built and equipped for convenience of company employes. Facilities include electric refrigerator, stove, water heater, automatic dish washer. In back of the camera is a complete set of electric woodworking tools. Fred Fish, sawmill superintendent, and Alfred Brown, chief electrician and assistant sawmill superintendent, and also co-producers of Electroset.

Illustrated in the picture herewith are Nopak Valve and cylinders operating edger feed rolls at Smith-Nielsen Lumber Co., Spalding, Idaho. Nopak valves and cylinders are manufactured by Galland-Henning Mfg. Co.

pressed air supply for the entire sawmill operations.

Another Electroset unit, manufactured at Clarkston, Wash., will be installed in conjunction with the edger to move the saws. According to Mr. Brown, the edger saws will be positioned by just setting a control dial and pushing a button. He says the company is going to install a double-end trimmer equipped with Electroset for positioning both saws. A simple double-end trimmer is now used for trimming.

Lumber emerging from the mill enroute to an edge sorter, goes through a dip tank where it is immersed in Permatox 10-S, a Dowicide treatment manufactured and distributed by the Chapman Chemical Co.

At the end of the chain transfer the boards are routed to either of three places—one of two conveyor chains or onto a skidway leading to a loading pocket directly opposite end of the transfer. Positioning of bridging arms determines the immediate destination of each board. The respective conveyor chains receive 4/4 and 5/4 lumber stock, each conveyor is 200 ft. long and serves 5 sort pockets.

The sawmill filing room, located on same floor level as the manufacturing machinery, is equipped with Armstrong saw sharpening equipment.

Slabs, edgings and trims resulting as lumber by-products are converted to hog fuel by a Diamond hog direct powered by 125 h.p. Allis-Chalmers motor. This hogged wood, along with sawmill sawdust, mixes with shavings from the planing mill and the mixture marketed in Clearwater valley for industrial fuel.

Lumber transport and handling facilities about the sawmill-planer-yard consist of two Ross carriers and one Ross lift truck.

According to Mr. Luhr, the planing mill output is generally kept in line with the sawmill production. Although some lumber is sold rough, other lumber is purchased for subsequent processing in planing mill.

On the mill pond, which covers area of three acres and holds about a million feet of logs, a Schnitzer & Wolf electric powered pond saw cuts logs to optimum mill lengths before transported into the plant via a General Machinery Co. chain log haul powered by a 5 h.p. Smithway gearhead motor. A ¾ yd. P&H shovel powered by Waukesha gasoline engine decks logs along the mill pond for storage purposes.

Propose Annual Cut for Southwestern Michigan

Cutting 38 million board feet of saw-timber and 80,000 cords of pole-timber annually for the next decade is the recommendation of conservation department foresters for best management of southwestern Michigan forest lands. This is less than the current annual production. Foresters estimate that under good management this area could produce twice the quantity now used locally.

Study of the southwestern counties was made by the conservation department forestry division in cooperation with the U. S. Forest Service, Michigan State College, University of Michigan and Michigan College of Mining and Technology.

Southern Hardwood Forestry

J. A. Butler, of the Deltax Branch, Southern Forest Experiment Station, Stoneville, Miss., has been named chairman of "The Southern Hardwood Forestry Group." The organization, composed of those in Louisiana, Arkansas, Mississippi and Tennessee interested in better management and utilization of southern hardwoods, will meet three or four times a year to discuss common problems. Membership is limited to those actively concerned with management and utilization of the hardwoods. W. E. Houser, chief forester for Anderson-Tully Co., Vicksburg, Miss., vice-chairman; and, J. S. McKnight, of the Delta Branch, secretary-treasurer.

B.C. Millmen Die

James Lindsay Galbraith, 83, for many years operator of a sawmill at Langley, B. C., and a sash and door factory in New Westminster, died recently following a heart attack. He and his three brothers went to the west coast from New Brunswick in the early 80's and they operated mills in partnership.

Geoffrey H. Walton, founder and president of the Sidney Lumber Co., whose sawmill near Victoria was dismantled after a fire several years ago, died September 6.

T. Frank Paterson, 82, pioneer of British Columbia who in recent years was president of Paterson Lumber Co., Cascade Mills and Terminal Lumber & Shingle Co., Vancouver, died late in September.

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1 RIGHT POWER—a choice of five engines in many different models, built for industrial uses, ranging from 120 cu. in. to 337 cu. in. displacement, offer the *right* power with steady, efficient and economical performance for literally hundreds of applications.

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Lift Trucks • Power Cranes • Yarders
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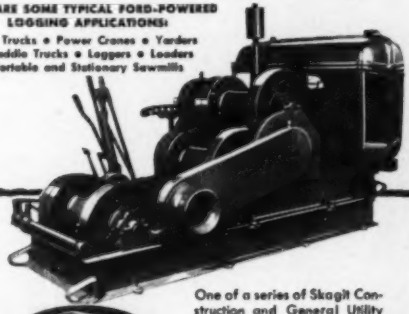

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THE HUSS CHRONICLE

From the files of

THE LUMBERMAN, NOVEMBER 1921

At the twelfth annual Pacific Logging Congress held in San Francisco. L. T. Murray, president and manager of the West Fork Logging Co., Tacoma, was elected president.

Violent and widespread opposition developed on the part of lumbermen against the exporting of cedar logs to Japan and efforts were being made to obtain a governmental ban preventing such shipments.

The Southern Pine Association issued a report indicating that the cost of manufacturing southern pine in August was $10 less than during the same month of 1920. The average cost including logs for August 1921 was $21.65 as compared with $31.70 for August 1920.

Tom Griffiths and Frank R. Sparger opened a cedar mill near Aloha, Wash., under the name of Sparger & Griffiths. Mr. Griffiths had recently returned from South America.

Erwin Rengstorff joined the staff of the Union Lumber Co., Union Mills, Wash., as logging superintendent.

C. H. Flory, regional forester of Alaska, issued a sales prospectus covering 335,000,000 feet of standing timber in the Tongass National Forest. The prospectus pointed out that there was a tremendous quantity of splendid pulp timber available in the National Forests of Alaska.

The Clark County Timber Co., Portland, Oregon, purchased 12,000,000 feet of timber in the Columbia National Forest on a bid of $1.50 per thousand board feet for the Douglas fir and the Ponderosa pine.

Only three hundred and fifty five forest fires were reported in Western Washington during the 1921 fire season.

So much for the past . . . In the Future, Try

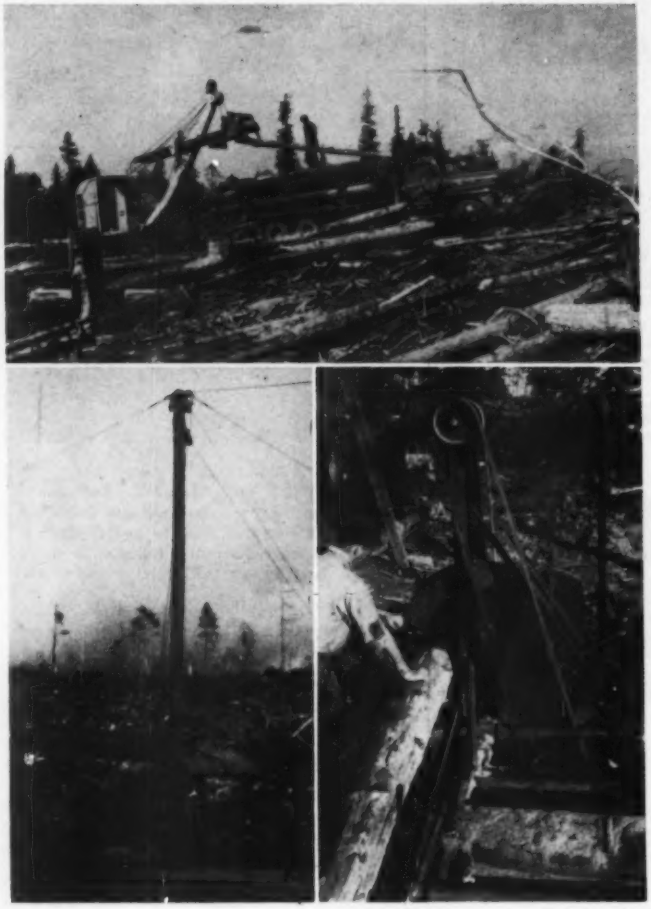
Huss Lumber - Huss Plywood

HUSS LUMBER COMPANY

2301 North Racine Avenue CHICAGO 14, ILLINOIS

GET THAT WASTE WOOD

BLOEDEL, STEWART & WELCH, GO AFTER WOOD IN ALL FORMS AND SIZES WHEREVER AND HOWEVER AVAILABLE



ILLUSTRATING THREE METHODS OF WOOD SALVAGE—Top: Loading with K-12 half-yard Insley shovel equipped with 24 inch Berger-Rees automatic air tongs. Lower left: This spar tree setup used in re-logging is built around a double-drum Hyster winch on a "Caterpillar" D-6 tractor. The spar tree is the hinged type, built on a Hyster arch. Lower right: Les Fiddick uses a portable cutoff saw mounted on rubber tires to cut wood to required length. He uses an A-frame and donkey for yarding.

Wood is what they are primarily interested in at Bloedel, Stewart & Welch's big lumber, pulp and shingle operations on Vancouver Island, and wood is what they are getting—wood in all forms and sizes, wherever and however it's available.

The emphasis, of course, is on good grade, standard size logs for the company's main sawmills at Port Alberni and Great Central, just as it has always been, but now that the company is engaged in large-scale pulp production and has installed a modern gang mill at Port Alberni the demand for wood has become not necessarily less selective but more diversified. Company men in the woods have become more conscious of wood in cubic feet content rather than exclusively in logs of so many board feet. Logs that used to be left in the woods because they could not be commercially utilized now find ready acceptance at the gang or pulp mill and large quantities of material that used to be rejected at the mills are now profitably converted into unbleached kraft pulp.

This new appreciation of wood has led to the initiation of an extensive and extremely diversified salvage log program which has already brought worth-while results and which Charles Dunham, manager of the company's timber and logging division, feels confident will play an increasingly important part in the overall wood production job.

Personally in charge of the salvage logging phase of the company's widespread activity is J. O. Hemmingsen, closely identified with logging all his life.

Mr. Dunham, in stressing the tremendous potential of salvage logging on Vancouver Island, says that the average volume of wood available in the great Central-Alberni area after primary logging runs to about 20 cords to the acre, on the basis of 90 cubic feet to the cord. The dominant species is Douglas fir. On the east coast of the island the average is considerably higher, a recent survey by the provincial government indicating as much as 42 cords to the acre—a difference explained by Mr. Dunham as being due to the fact that Bloedel policy has been to take out a larger percentage of wood in primary logging.

About 6000 acres of timberland are being logged now in the Great Central Lake area and at an average of 20 cords to the acre this would theoretically yield 120,000 cords of salvage wood annually, which is actually 20,000 cords more than the pulp mill requires for a year's operation. About a million acres of forest are tributary to the Port Alberni plants and an unofficial estimate is that they contain more than 30 billion feet of usable timber—plenty of wood here for continuance of the company's substantial production of lumber and probably for a pulp mill of much larger than the present capacity (about 200 tons a day) should expansion be authorized.

To get out salvage wood the com-

HOW YOUR PLANING MILL CAN EARN LARGER PROFITS

FROM TIME...

FROM SPACE...

And a Crew of Absent Men

IF YOUR planing mill produces 80,000 to 200,000 board feet of lumber per shift, your output per man per shift should be 12,000 to 20,000 board feet of planed, double-end trimmed, graded, grade-trimmed, stamped, and sorted lumber.

Your operation, if engineered for continuous straight line production yielding 100,000 board feet per shift—should require only 7 men or less!

On the other hand, if your 100,000 board feet per shift production depends upon from 2 to 4 hand-fed belted planers, you are probably wasting the efforts of 7 to 14 men.

With a Stetson-Ross production line synchronized to a Stetson-Ross Planer and Matcher, you can convert to profits the wages of this crew of 7 to 14 absent men!

And you can convert to profits the TIME you can save on maintenance! Why spend hundreds of hours repairing broken belts, pouring babbitt bearings, and doctoring duplicate blower and conveyor systems?

Moreover, a Stetson-Ross single production line requires only 3,500 to 4,000 square feet, which quite probably is only one-half of the space occupied by the multiple planing, trimming and grading production lines you are now using.

Examine your planing mill operation NOW, and see if you are wasting time, space, and manpower.

Here are some of the outstanding features of Stetson-Ross Machines:

1. "Cartridge cutterhead" profilers adjacent to sideheads for accurate pattern registration.
2. Profiles alignable with guide for perfect eased edge splitting.
3. Push-button-controlled adjustment of top rolls, cutterheads, and outside sidehead.
4. Interchangeable top and bottom cylinders.
5. Sealed-in-oil feedworks.

You are invited to write for the free eight-page illustrated booklet entitled "The ABC's of Planing Mill Layout."

Stetson-Ross medium duty 6-12-A1 Double Profile Planer and Matcher (10 or 12-knife)

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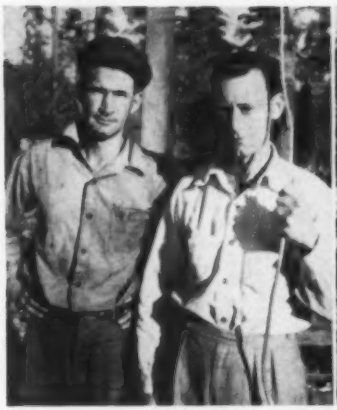

Left: Directing salvage logging for Bloedel, Stewart & Welch is J. O. Hemmingsen (right) shown here with Les Fiddick, who runs an A-frame and portable saw operation. Hemmingsen, although he started his career in west coast woods, was with Bowater's Newfoundland Pulp & Paper Mills before returning to the coast about a year ago. Center: R. G. Anderson and J. A. Anderson are logging eight to ten cords a day in log lengths with a light yarder. Here R. G. Anderson is preparing a turn of logs for skidding. Right: Seemingly primitive perhaps, but effective is the skidding operation by horse carried on by D. E. Halvorson and his son Ivan. He salvaged 220 cords from about seven acres.

pany and the contractors working for it employ an interesting assortment of methods.

Shovel Loading Operation

1. The air tong shovel loading operation is owned by Garner Bros. of Duncan and is built around an Insley ½-yard shovel equipped with 24" Berger-Rees air tongs. The yarding or skidding equipment at this location includes an International TD-14 tractor and an International TD-9 tractor, both equipped with Carco towing winches and cable controlled Isaacson bulldozer blades. The slash bucking is done with two IEL one-man power saws.

Trucking equipment includes a Mack truck with Highway bunks and a White truck, both using Columbia trailers. The total crew for the operation from stump to saltchuck is 13 men—two buckers, two tractor operators, two tractor hookers, two tractor chokermen, two truck drivers, one shovel operator, one loader (for limbing and loading direction) and one foreman.

The material is skidded by tractor to roadside where it is decked right angle to the road for easy loading. A species sort is made in the woods with the air-tong loading equipment, and each load contains only one species—fir, cedar or hemlock. Most of the logs are small, the individual piece averaging from 8 to 12 cubic feet. The truck load averages 9 cords, or from 65 to 80 pieces.

Production in cubic feet varies with the size of the material handled, but daily production average is about 40 to 45 cords with upwards of 500 pieces on some days. The truck haul is 12 miles long. The loads are bundled with Meighan straps prior to dumping. The hooks are buckled up on the brow log side at the dump. The dumping system is the par buckle type and the load makes a ¾ turn on the fall into the water, bringing the hook to the top of the floating bundle for easy unfastening at the pulp mill. One Meighan strap is taken from the bundle in the water to reduce storage costs in strap equipment.

High-Lead Operation

2. A high-lead yarding and loading operation is being carried on for production of log length pulpwood by J. A. Anderson, who uses a leaning spar tree. Lines are run in the woods in the conventional manner, but the landing is constructed in such a way that a truck and trailer can be placed directly in line with the road being logged; thus the log is yarded and loaded onto the truck in one operation. Two men are employed here, including a truck driver who operates the donkey during the yarding-loading. Output varies from 8 to 12 cords per day for a piece count of 80 to 120 logs.

Log-length pulpwood is delivered to the Bloedel gang mill in bundle form, the bundle being broken up at the foot of the mill's jackladder by two men who also feed the jackladder. All log-length pulpwood is barked and chipped with the gang mill barking (Hansel) and chipping (Sumner) equipment, the resulting chips being conveyed to the pulp mill silos. Each log or piece of salvage wood is scaled in front of the barker and a cubic content for any one bundle or numbered truck load is calculated. Payment to the contractor is made on the basis of cubic foot content on a load average arrived at in this manner.

Company operations for production of pulpwood will vary from clean primary logging to pre-logging and re-logging. Each operation should fit the different conditions of ground and material, and the problems of transportation to be met. One re-logging operation recently started depends on a double-drum Hyster winch in a "Caterpillar" D-6 tractor. The spar tree is the hinged type, constructed on a Hyster arch. Height of the spar tree is 47 feet and it is possible to move the unit along the truck roads without lowering the tree. Four guylines are used, and the scab skyline type of rigging operated gives additional lift. The lines and rigging are light, making it possible to log in high gear.

Experiments in bundling or packaging the turns on the landing as they are loaded have been tried. The size of package is from 10 to 15 pieces or up to two-cord volume. The purpose of packaging is to reduce loading and transportation costs. Loading of packages is accomplished with ¾ yard Northwest shovel with heeling equipment.

Portable Mill Bucking

For complete utilization of material available, the pulp mill barker chipper is capable of handling sawmill slabs and bushwood down to 4 foot lengths. To supplement avail-

(Continued on Page 122)

Round Chain meets every lumber industry need!

Since 1869, ROUND Associate Chain Companies have been privileged to serve the lumber industry and to fill its requirements for chain of every size and type.

A few typical ROUND chain products are pictured here. Many others are readily available from stock—or can be made up on special order. Remember—if it's chain, ROUND can supply it!

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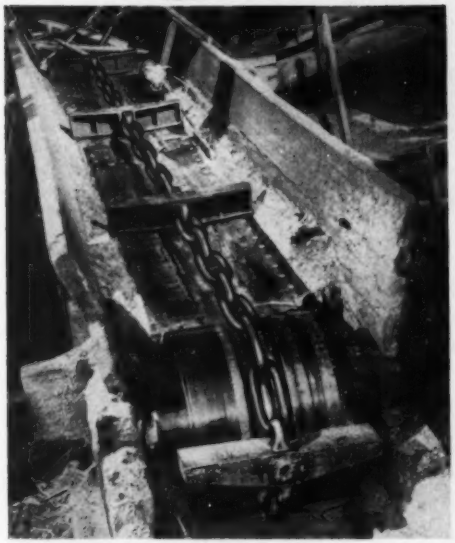

ROUND Conveyor Chain at Nettleton Timber Co., Seattle. Also known as "Log Haul-Up Chain", this chain is precision made by the most experienced and skilled chain craftsmen. Each link is calipered to secure accurate dimensions and assure efficient operation without binding in the sprocket wheel. Available in 2 grades—"*888 Quality*" made of special analysis chain steel and "*Dredge Quality.*" The latter is made of superior quality All Puddled Wrought Iron. It is especially resistant to strain and overload. Available in 40 sizes (½" to 2" diameter) in any desired length.

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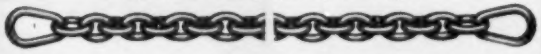
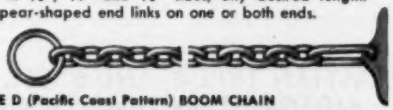


STYLE A DECK LASHING CHAIN—Used to hold deck cargo in place. Usually furnished in ⅜", ¾" and ⅞" sizes, any desired length. Straight-sided or pear-shaped end links on one or both ends.



STYLE D (Pacific Coast Pattern) BOOM CHAIN
Ring on one end, long link and balanced forged toggle on other. Standard sizes ¾", ⅞", 1". Standard lengths, 5'6", 6' and 6'6".

Super-Steel High Test Chain—14 sizes (¼" to 1½")

A full line of Ohio heavy duty electric hoists, hand chain hoists, trolleys, winches, and materials-handling equipment. Ohio Spur Geared Hoist is shown in illustration.

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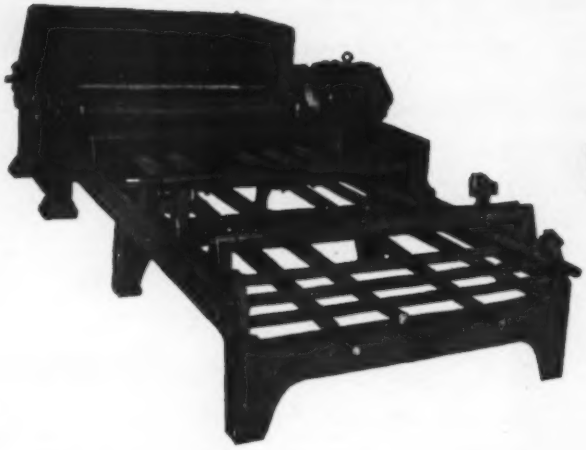
Heavy Duty

EASTERN TYPE EDGER



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NEW EQUIPMENT INCREASES PRODUCTION OF SAWMILL

Wagner Bros. Lumber Co. has recently undergone extensive modernization which materially ups production output. This mill, originally built in 1945 as an 8-foot mill, was later extended to handle 20 ft. logs, and subsequently was destroyed by fire in 1946. During the following year it resumed operation as a 50M ft. per day plant, cutting 2-inch stock. Last year's addition of a 6 ft. band resaw brought about additional production increases by cutting for 5 and 8 in. cants at the double circular headrig, thus providing suitable stock for further processing at the resaw. Fred Dallos, plant superintendent, says this manufacturing change resulted in 60 percent production increase accompanied by corresponding reduction of costs.

An extensive plant modernization program early this year again increased output. Among the prime changes accounting for this material production increase—of about 50 percent—were the replacement of an 8 in. edger with a new Portland Iron Works 12 by 60 edger, and replacing steam feedworks with a Skeen electric feed—a combination unit driving both the carriage and edger feed rolls.

The previous edger had conventional direct feed of 5 h.p. on feed rolls and 100 h.p. drive on the saws. A 300 h.p. electric motor powers the new 5-saw edger, with the feed rolls powered by 20 h.p. Skeen Electric drive.

With the replacement of steam carriage feed by Skeen Electric drive, the carriage speed was more than doubled, according to Mr. Dallos. Besides, this was accompanied by a material reduction of power consumption.

"We previously were using an oil-fired furnace just to provide steam power for carriage feedworks. This cost some six times as much for power as does the electric drive," Dallos told TL.

This combination Skeen Electric drive for both carriage and edger feed is a unique addition to the lumber industry. One generator provides power for both feeds. It is driven by a 3-phase, 125 h.p. motor. The generating set, with necessary exciters for both drives, makes up a compact unit of five machines all mounted on one base. Each drive has its own operator control.

Several other changes were made throughout the plant to facilitate taking full advantage of the prime processing improvements.

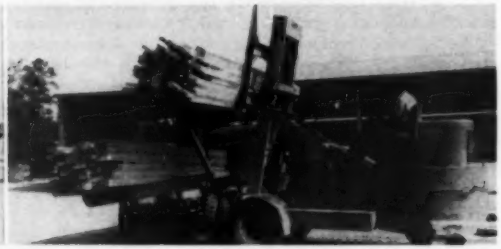
The log deck was rebuilt, miter gearhead headrolls built by Zidell Machinery Co. were installed; the conveyor from headrig to No. 45 Diamond Log was rebuilt. Now the mill's wood by-product materials, including shavings, hog fuel, and solid wood pieces up to 2 ft. in length, all go to a single storage hopper. This material is sold to a local pulp and paper manufacturer.

Rolls ahead of the edger were put on 12 in. I-beams, and new transfer chains were installed to the Sumner 26 ft. air trimmer.

(Continued on Page 121)

Upper left: Carriage with Skeen electric feedworks carries log to Peters double circular, 200 h.p. G.E. powered headrig. Upper right: The Sumner 26-foot air trimmer powered with 75 h.p. G.E. motor. Below, left to right: Two of the partner owners, C. E. Ismus and G. M. Meawad; John Lusk, master mechanic; Fred Dallos, plant superintendent; Sparky Nesmith, yard superintendent.

Spotlight on one of the Southeast's largest CONCENTRATION YARD



Left: General view of Barrow Mfg. Co., showing offices and finishing plant at right, and stacker and rough grading buildings at left. Note all lumber is kept in package units. Right: Lumber from the portable mills cutting in the woods, is loaded on trucks so that it may be removed in a package unit, as shown here, being taken off by one of Barrow's Ross fork trucks.

One of the largest concentration yard operations in the Southeast is that of Barrow Mfg. Co., Ahoskie, N. C. Located just below the northern boundary of North Carolina, this company contracts for the output of seven portable sawmills in the area and sends an average of 12 million feet of lumber a year through its dry kilns and remanufacturing plant.

Although one of the largest, the Barrow company is typical of those operating in that area that must comb smaller and smaller woodland tracts to find suitable saw timber. This means the use of portable sawmills, and the frequent move of these mills to locations where timber may be logged-off profitably.

President of the company is John K. Barrow who has been in the lumber business in North Carolina for over 40 years. Working with him as secretary-treasurer and general manager is John K. Barrow, Jr. The company has been at its present location for the past five years, and under the progressive leadership of the Barrows the concentration yard and remanufacturing plant have been equipped with the best in methods and handling machinery.

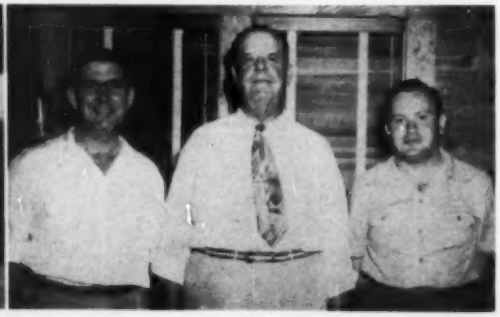
The area around Ahoskie bears loblolly and short leaf pine species, which make up 90 to 95% of the lumber handled by Barrow. A small amount of gum and poplar is handled for the furniture trade, while the pine lumber goes to wholesalers in Eastern and Mid-Western markets. The common grades of pine lumber are made into construction and crating sizes, and the upper grades are manufactured into a full line of flooring, finish, siding, etc. Pine flooring is Barrow's specialty.

P. P. Pace is Barrow's timber cruiser and superintendent of the seven mills either operated by or contracted for the company. Mr. Pace says the portable unit has proved most practical for the work in that section. The units used by Barrow are manufactured by the Frick Co., Waynesboro, Pa. and will cut an average of 10,000 board feet a day. The units consist of a 15 foot carriage; a 54 inch head saw; a 32 inch edger; and a swing cut-off saw. It takes approximately two days to change locations for this unit and begin operating.

At the sawmills the lumber is given preliminary grading and is then loaded on trucks in such a way that it may be removed in a package unit at the concentration yard by a fork lift truck (see illustration). Barrow has four of these machines—three Ross and one Hyster—and in addition has one Ross straddle-type carrier working in the yard.

First Installation in the South

When lumber is received at the 15 acre concentration plant it is removed by fork lift truck in a package unit and taken to a Moore Dry Kiln Co. automatic roller type stacker. This is the first of its kind in the South, and was installed at the Ahoskie plant in September



Left: This Frick portable sawmill unit is typical of the many operating on comparatively small stands of timber in northern North Carolina, and is one of seven cutting for the Barrow concentration yard at Ahoskie. The main log carriage and 54" circular saw is at left background; trim saw in right foreground; and the International Diesel power plant at right rear. Right: John K. Barrow, Jr., John K. Barrow, and W. C. Pearce, office manager. The two Barrows have been operating the Barrow Mfg. Co. in its present location at Ahoskie, N. C., for the past five years. Barrow, Sr. has been in the lumber business in North Carolina for over 40 years.

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In Logging or Milling

Today's heavy demand for lumber means that equipment must *keep on the job* day in day out with minimum time out.

Whitney Chain Drives will help you keep loaders, yarders, band mills and other equipment producing. These tough, field-tested chain drives are built to take the gruelling service encountered in lumbering and milling operations. Their *positive grip* transmits full rated horsepower smoothly and efficiently. Constructed of heat-treated, alloy steel parts, they withstand shock loads without breakage . . . give long-lived performance that reduces maintenance costs, boosts production.

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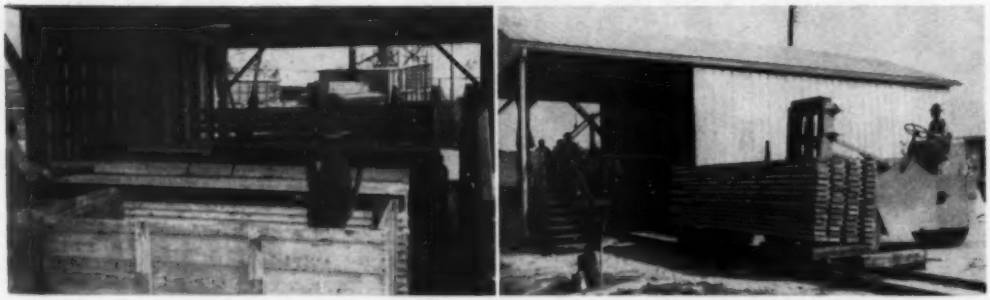
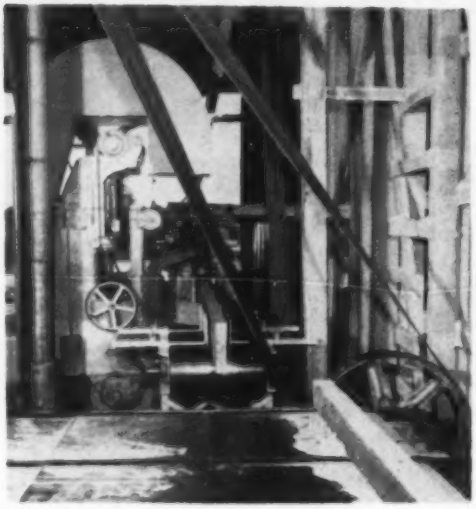


Left: This Moore Dry Kiln Co. stacker is the first of its kind placed in operation in the South. Lumber feeds onto the four link chains from the tilting break down hoist in the rear, and is "stacked" by men working in foreground. Operating buttons for the stacker are at the right of the man in foreground, and the "stacked" loads run out on tract at the right. Right: A completed load is taken from the track leading from the Moore stacker by lift truck. Note wide space left between boards to permit better air circulation in drying.



Yates - American V-60 resaw is equipped with an 8-inch 30 foot Simonds band saw. Mechanical tailer, evener and chain transfer unit in foreground.

P. P. Pace is timber cruiser and superintendent.

1950. A tilting break-down hoist takes the lumber from fork lift truck loaded haul up chains and breaks it down to feed onto a link chain conveyor which delivers it to the package end in courses.

The completed stickered units from the stacker are automatically rolled out onto a track where they are again taken by the fork lift trucks to the Moore dry kiln or to the yard for air drying. The kiln handles about 150,000 board feet a week in the operation. This kiln was designed so that each kiln car contains six stickered unit packages. Fork lift trucks load and unload the kiln cars.

After kiln drying the lumber is carried to the grading shed where it is rough graded and when necessary grade ripped with a power fed Newman rip saw. From this grading shed the kiln dried rough lumber goes to the rough storage shed.

From the rough storage shed and air drying yard the lumber moves by Ross straddle carrier to the remanufacturing plant. Here was recently installed a Yates-American V-60 resaw unit. This is a new piece of equipment and is equipped with Simonds 8 inch wide and 30 foot long band saw. The lumber from the resaw passes through a combination mechanical "resaw tailer," end evener and roof top chain transfer to a 20 foot Montague undercut trimmer equipped with six 24 inch Simonds circular saws. The "resaw tailer," end evener and chain transfer unit was designed by the personnel of the Barrow Mfg. Co.

From the Montague trimmer the lumber is conveyed by chains to a Yates-American A-62 planer and matcher equipped with feeding table. A belt conveyor moves the finished lumber from the planer and matcher to the grading chains. If resawing after dressing is desired, the lumber can be stopped by mechanically raised arms and fed from the grading chains through a second Yates-American V-60 resaw to be automatically returned back onto the grading chains. The finished lumber is then moved by belt and chain conveyors to the loading points for rail and truck shipment.

High Degree of Mechanization

As has been seen, the principal features of the Barrow set-up lies in the size of the concentration yard operation, and in the high degree of mechanization which has been effected. The efficiency of handling has been brought about through establishment of package units at the portable sawmills. This means no manual handling of the lumber again until it enters the remanufacturing plant. The accomplishment of this rests very much with the new break-down hoist and stacking equipment which permits a package unit flow right through the kiln or air drying yard. Coupled with this is moving the lumber through the remanufacturing plant entirely with belt and chain conveyors in an assembly line type of operation.

ROADS IN

COLUMBIA CONSTRUCTION CO.

Terrace, British Columbia, use a 1 yd. Lorain 50-K crawler shovel to load creek gravel for surfacing 24 miles of logging road.

LOGS OUT

EDWARD J. HINES LUMBER CO.

Hines, Oregon, use a 20-ton Lorain Moto-Log Loader to load about 130,000 bd. ft. of logs per day.

LORAINS GO ALL THE WAY ON LOGGING

What's your logging problem? Pioneer roads? New bridges? Log loading? To solve them all, get jobs done faster at big savings, take advantage of the many working combinations available in the Lorain line!

A Lorain shovel on crawler mounting will handle every roadbuilding need from grading to digging gravel for surfacing and maintenance. And with a change in boom, this same Lorain is in the log loading business. When these latter jobs require a rubber-tire machine, the Lorain Moto-Crane answers the need for high speed mobility to serve widely scattered landings all over the show.

Here's the point — you'll find *"selection unlimited"* in the line-up of Lorains to fit your logging needs. Your Thew-Lorain Distributor will go all the way with you in fitting your show with the right machine.

THE THEW SHOVEL CO., LORAIN, OHIO

GET THE "50" STORY

Newest in the Lorain line of Log Loaders . . . newest features to fit loggers needs . . . be sure to investigate these important advantages . . .

- AS A MOTO-LOG LOADER — built from the ground up for 25-ton logging duty; stronger carrier — 10 speeds, air assist steering; 220 h.p. carrier engine.
- AS A CRAWLER — hydraulic coupling smooths out shocks in rock; choice of 4 crawler lengths and widths for any working condition; 5 interchangeable front ends.
- OTHER LORAINS FOR EVERY JOB — ½ to 2 cu. yd. classes; up to 45-tons lifting capacity. Wide selection of crawler and rubber-tire mountings.

THEW LORAIN CRAWLER OR RUBBER-TIRE LOG LOADERS

FOR YOUR LOG LOADING NEEDS SEE YOUR THEW-LORAIN DISTRIBUTOR

SMALL BUT EFFICIENT

Left: At right rear the lumber goes over the double end trimmer onto the F-24 feed table into the Yates A-20 matcher. It comes forward to where a truck may be waiting to pick up the order, eliminating re-handling. Center: This Yates V-60 resaw is located so that lumber can be easily passed to the matcher table. Right: O. T. Smith, owner of O. T. Smith Lumber Co., West Columbia, S. C.

O. T. Smith, owner of O. T. Smith Lbr. Co., Route #2, West Columbia, S. C., has been in the lumber business for 21 years, the last seven of which have been spent on his 11 acre location at the edge of town. The extra mile or two is no factor for trucks and there is ample space for air-drying the purchased green lumber stock and the 50 by 100 ft. tiled wall, concrete floored building. The structure has wood trusses and is built without columns.

Rough stock is brought into the plant on dollies drawn by an Allis-Chalmers wheeled tractor. Spotted alongside the double end trimmer it passes directly across this mechanism to the F-24 automatic feed table into the Yates A-20 matcher. Provided with wide doors and a high clearance for the building, as frequently as not the finished stock may be loaded out directly on a waiting truck for delivery. When needed, a Yates V-60 band resaw is in line back of matcher. An average 20M feet per day is run through the matcher.

The company operates four trucks, three of which are Reo and one a GMC . The total company operation employs 17 men. The same crew operates all equipment, shifting from one to another as an order is filled. Here is a tailored operation fitted to the trade.

Safety Device

Ingenious mechanics at the Vancouver, B. C., plant of Universal Box Co. have eliminated a hazard which used to be present in the operation of lumber carriers in the yards—the drive chains on the rear wheels.

At the pinch-point where the chain runs onto the sprocket several accidents had been caused, so it was decided to do something about it, especially since other pinch-points throughout the industry if within seven feet of the floor or working platform must be guarded to prevent accidental contact.

Accidents reported at Universal which involved the drive-chains of lumber carriers were caused by the chain breaking and with nothing to restrain the broken chain it flew over the top sprocket, striking the carrier driver.

Many lumber carriers are equipped by their manufacturers with guards, but Universal fabricated its own on the job, as shown in the illustration,

in which W. M. "Scotty" Allison, safety director of the B. C. Lumber Manufacturers Association, and Art Fee, carrier head mechanic, appear.

Cottonwood Possibilities

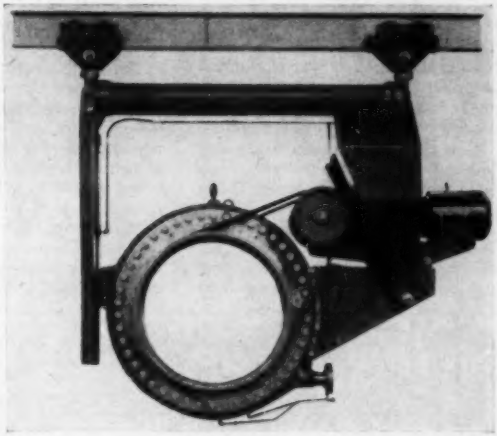
Cottonwood plantations can prove profitable for southern bottomland owners, according to a study completed by Southern Forest Experiment Station, New Orleans, La. The cottonwood tree grows from ½ to 1-inch in diameter and four to five feet in height up to 25 years and then somewhat more slowly until its 42 years' maturity. An acre would average 30,000 board feet, worth $450 according to current stumpage values. The total cash outlay in 42 years is placed at $50 an acre leaving a net return (interest being disregarded) of $400. An additional return may be taken in pulpwood from thinnings and tops.

For

SLAB BARKING

or

WHOLE LOG BARKING



HANSEL
HYDRAULIC BARKERS

bring you these *Profit-Making* features:

THERE is no bark disposal problem with a Hansel hydraulic barker. The bark and water run off in a conveyor below the barker. There is no mechanism below the barker to gather bark. No down time need be considered for cleaning the barker or barker house.

There is a whole log barker especially for sawmills where the production rate will not warrant the high cost usually associated with hydraulic barkers and this machine will be of especial interest to medium sized sawmills.

The maintenance cost of a Hansel barker is very low and has proven to be far below that of any other barker. In one mill a Hansel barker has operated for 15 months without any maintenance on the barking unit.

INCREASED YIELD

... because the sawyer is enabled to make a better cut with a bark-free log.

LUMBER UPGRADED

... because logs reach the sawyer for full inspection without the bark.

LOWER MAINTENANCE

... because bark-free logs reduce saw maintenance about 30 per cent; lessen deck clean-up time.

CLEANER MILL

... because the logs enter mill with the bark and dirt washed away.

INCREASED PRODUCTION

... because there is no down-time due to bark-clogged machinery.

When you write for complete information, please let us know the range of diameters and lengths of your logs and the total production per shift. This will enable us to make a preliminary estimate of the barker best suited to your requirements.

HANSEL ENGINEERING COMPANY

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VANCOUVER 9, B. C., CANADA

Long-Bell Sawmill

(Continued from Page 73)

Timber manufactured at the headrig, or headrig and edger, continue directly out through rear of the mill to timber dock except that any necessary cut-off processing takes place enroute near back end of the mill.

Both the 300 ft. green chain and timber dock use Moline roller-top chain purchased from Minder Chain & Gear Co.

Drives in the mill are powered by General Electric-Pacific Gear & Tool Works gearhead motors up to around 10 h.p., while more heavily powered drives use General Electric motors teamed with Western Gear Works gear reducers. Roll casings are mounted in anti-friction Dodge-Timken pillow blocks.

The mill's automatic transfer lifts are activated through Skinner solenoids and air valves. Most of the air cylinders have an automatic centering device for returning the valve to neutral position and cut off all air when the piston is in retracted position. All air cylinders are equipped with electric heaters to prevent freezing. These heaters normally are not connected to the power circuit except during cold weather.

Conveyor chains have automatic power cut-offs for stopping them whenever the conveyor chain breaks. Thus the chain would stop in place rather than pulling on around and piling up in one spot. Weight of the slackened chain trips the power cut-off.

To prevent pile-ups of materials in the conveyors, the main conveyor system components are interlocked by relays to automatically cut off the power to feeder conveyors whenever the conveyor leading to the hog is stopped for more than two minutes. Slabs, edgings and trims are all converted to hog fuel by a Filer & Stowell 62 in. hog powered by 200 h.p. 2300-volt G.E. induction motor. The hogged material feeds onto hog-fuel belt conveyor mixing there with sawmill sawdust. This fuel leaves the sawmill headed for power plant on a rubber conveyor belt. The conveyor divided into three sections of 403 ft. each, terminates at a 100 ft. conveyor (36 in. belt) crossing over the road to power plant. A portion of the belt was formerly used at Long-Bell's Longview plant for transporting hog fuel from the mill out to barges in the Columbia river. All the rest of the conveyor belting in the new installation at Vaughn is Goodyear Tire & Rubber Co's. and American Rubber Co. product. Stephens-Adamson Manufacturing Co. idlers are used on the main fuel conveyor. The conveyor structure is of steel except under drives.

Supporting timbers for these conveyor drives were fabricated and creosoted at the company's Longview plant and shipped to Vaughn for assembly.

The crane shed, a truss-roof building 115 ft. wide by 680 ft. long, connects with the loading area which has capacity for 14 rail cars in addition to truckloading facilities. A bridge crane is yet to be installed in this shed to take over part of the functions now done by lift trucks and lumber carriers. The mobile fleet for handling and transporting lumber throughout the plant now includes one Ross and three Gerlinger carriers, four Ross and one Gerlinger lift trucks. The plant has 32,000 square yards of yard area hardsurfaced with blacktop.

The sawmill filing room, located on top floor over the headrig end, has been equipped with the latest in Hanchett heavy grinding machinery, including the recently introduced circular-saw grinder using a double-action air cylinder for shifting cut-

ASSOCIATED *"Covers"*
The Northwest Lumber Industry

134 Bowstring Trusses used in roof of Longbell's plant at Vaughn, Ore.

The Longbell Lumber Company's big mill at Vaughn is typical of the many new plants who's superstructures are being erected by Associated. Whenever speed, strength, economy and acres of open floor space are required you'll find Associated engineers on the job designing and erecting dry sheds, sawmills, planning mill sheds, green chain sheds, plywood mills and other type buildings. Associated welcomes consultations with engineers and builders for accurate estimates of time and cost. Write today—send your specifications now!

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GET the full value in H.P. from your engine. If—for example—your Yarder is powered by a 400 H.P. engine—you have paid for every one of those H.P.'s.

A GEARMATIC Transmission can help you get your money's worth—the full H.P. rating in work out of your engine—no matter what make or model.

A MODERN yarder is a big investment. Ensure profitable returns in increased production . . . specify

GEARMATIC AIR ACTUATED TRANSMISSION

Industrial Models of 2, 3, 5 and 7 speeds
Capacity—from 60 to 1200 horsepower.

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Northwest Industrial Equipment Co.
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Eureka, California.

ter head from tooth-face to tooth-face. Use of the air cylinder in place of the previous cam-actuated system reportedly eliminates over 20 parts per machine. R. H. Adams is head filer at this mill. The filing room is equipped with Armstrong saw tools.

George S. Hays, for years resident manager of Vaughn division, affiliated with the Long-Bell organization 51 years ago last month and has been with the firm ever since. He retires from the firm with conclusion of this year; to be succeeded by Harry Kelsey on Jan. 1.

Other personnel at Vaughn plant include the following: Dan Nesmith, superintendent of manufacturing; Joe Berens, chief engineer; Albert Nelson, master mechanic; Tom Welburn, chief electrician; Jerry Casler, motive equipment chief mechanic; Lloyd Simkins, sawmill foreman; Marion Standefer, planer foreman; Howard Norwood, in charge of shipping; Robert Rexas, in charge of dry kilns.

Layout and design of the new Vaughn sawmill was done by T. E. Heppenstall, Long-Bell vice president in charge of engineering, and Joseph Strehle, Long-Bell construction engineer. W. H. Rambo, Portland, did the detail engineering with G. H. Holmberg representing Rambo during the construction as superintendent.

Stein Brothers, Eugene, were the general contractors. Industrial Electrical Service Co., Roseburg, held the electrical installation contract; Associated Wood Products of the Northwest, Portland, erected the buildings, and the Longview Plumbing and Heating, Longview, did the pipe work.

W. R. Taber, Long-Bell's purchasing agent in Longview, and Herman Thatcher, Vaughn division purchasing agent, did the purchasing of machinery for the new plant.

Kiln Drying

The West Coast Dry Kiln Club held its 75th meeting at Hult Lumber Co., Junction City, Ore., in September. Raymond Rietz, Forest Products Laboratory, Madison, Wis., spoke to the group on the general subject of kiln drying of lumber, pointing out several advantages resulting from such, including increasing quality, pre-shrinking the product before placed in use, increasing both strength and nail-holding ability; raises value for gluing purposes, reduces insect susceptibility; reduces weight.

He said that as far as he knows there are no revolutionary processes now in sight for drying which will make present facilities obsolete, but pointed out that efficiency of operation can reduce the cost of drying over a period of time and dry a greater footage, thus lessening the cost per thousand board feet.

Mr. Rietz attributes warping of second growth lumber to poor stacking rather than to improper drying schedules. Proper stacking is essential to good circulation and drying.

The following pointers were provided for kiln operators: Frequently check air circulation within the dry kilns, and check for moisture content consistently in order to know that the drying is uniform.

In memoriam, tribute was paid to the late William J. Baker, director of research, Oregon Forest Products Laboratory, Corvallis, Ore., who died August 10.

New Owners

The Rusdick Lumber Co., has purchased the Weiser Lumber Company's mill at Marysville, Wash. The Rusdick company's mill near Concrete, Wash., burned last spring.

McDONOUGH

44" VERTICAL BAND RESAW

√ Belt or motor driven.

√ Heavy duty ball bearings.

For Complete Information on 44" or 54" Vertical Band Resaws

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McDONOUGH MANUFACTURING CO.

Incorporated 1888

EAU CLAIRE, WISCONSIN

"World's Largest Producer of Band Resaws"

Which Is More Wasteful Peeling Or Sawing?

W. H. Robertson, production manager of Longview, Wash., Branch, Weyerhaeuser Timber Co., in the October issue of the Weyerhaeuser Magazine answers the following question by an employee of the company's McDonald logging operations "What is the Difference in Wastage between peeling and sawing a given Log". Mr. Robertson's reply follows:

"This is a rather difficult question to answer. Some experts believe waste is less in plywood manufacture than in sawmilling. However, at Longview, we haven't found this necessarily true. Because of the wide variation in logs used in peeling and sawmilling, it is almost impossible to get a true comparison unless you conceivably could get two identical logs. Of course, there are no two identical logs.

"Each log has its own particular application for lumber, plywood, or pulp. Short butt cuts work best as lumber. Second cuts from large yellow fir logs make the best plywood blocks. Tops of all logs, being knotty and coarse, work best for low-grade lumber or pulp. Bark which is removed from logs is used to produce either bark products or powerhouse fuel. At Longview, even sander dust from the plywood plant is sold for wood flour which has various uses. Planing mill shavings are made into Pres-to-logs. The main thing in the modern forest-products plant is to get the most from each log, eliminating all waste possible."

Remote But Modern

For a mill located in a relatively remote section, Decker Lake Lumber Co.'s new plant at Decker Lake, near Burns Lake, B. C., is unusually modern and efficient.

The mill has a capacity of 90,000 board feet of planed lumber per shift. A Yates planer of latest design, equipped with automatic feed, was recently installed. It replaces three planers formerly operated on a custom basis for Decker Lake operators.

Rough lumber is delivered to the mill from neighboring plants by truck and is unloaded directly on to the sorting and trimmer chains. Lumber to be re-sawn is automatically delivered through the re-saw and back to the sorting chain.

The whole mill was designed by Oliver Stalder, who has had considerable experience as a millwright on the coast as well as in the interior of British Columbia.

GET A FREE Tuffy SLING AND PROVE TO YOURSELF IT'S MORE FLEXIBLE!

Yes, here's your chance to see for yourself the braided wire fabric of which TUFFY Slings are made. Tie it in knots, kink it—then see how easily a Tuffy sling can be straightened out without material damage.

Patent No. 2,454,417

HOW Tuffy SLINGS ARE MADE

Scores of wires are stranded into nine parts, then machine woven into an interlaced wire fabric. This braided fabric gives extra safety and enduring strength. Even cutting one of the 9 parts does not result in stranding of the sling.

11 TYPES—PROOF TESTED FOR SAFETY There are 11 different types of Tuffy Slings, each one proof-tested to *twice* its safe working load. And the safe working load is plainly marked on metal tags on each sling. Also, Union Wire Rope engineers will help work out special sling problems. If you have your own rigging loft, Tuffy braided wire fabric is available by the reel.

FREE SAMPLE—MAIL COUPON

To show you the difference between TUFFY Braided Wire Slings and ordinary wire rope slings, we have made up a quantity of 3-foot slings. We want you to have one so that you can test it and prove to yourself that TUFFY Slings really are better. Mail the coupon below today for yours.

UNION WIRE ROPE CORPORATION
Specialists in Wire Rope, Braided Wire Fabric and High Carbon Wire
2164 Manchester Ave. Kansas City 3, Mo.

Gentlemen: Please have my Union Wire Rope fieldman deliver me a FREE Tuffy Sling.

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Firm Name_____

B. C. Coast Mills Get Interior Logs

Powell River Co., big British Columbia pulp and paper manufacturer, is now taking out pine and spruce logs from the interior of British Columbia, mostly in the Quesnel and Williams Lake areas, and shipping them down the Pacific Great Eastern Railway to Squamish for booming.

Rice & Yorston of Quesnel are shipping about five carloads of logs daily, each carrying about 8,000 f.b.m., while Anton Pole & Lumber Co. and George Turner, both of Williams Lake, will be loading two cars a day.

Fifty-eight special log-carrying railroad trucks have been acquired for this operation by Kelley Logging Co., a subsidiary of Powell River Co.

Cariboo jack pine was extensively used during the last war for the manufacture of unbleached sulfate pulp at the Sorg mill at Howe Sound, now operating as Howe Sound Pulp Co.

OSGOOD

Champion lumberjack in the big timber!

At camp after camp in the big timber, OSGOOD Mobilcranes are recognized as champs of the log loaders. Potlatch Forests, Inc., Lewiston, Idaho, owners of the OSGOOD Mobilcrane Model 825 shown above, like the increased profits made possible by the machine's unlimited mobility, extra lifting power, bull-dog stamina, and one-man, one-engine operation. Muscle-saving air control of swing, hoist, and travel motions . . . performance-smoothing OSGOOD Air Cushion Clutches . . . hydraulic steering . . . independent travel, with four speeds forward, four reverse . . . independent boomhoist . . . these are but a few of the standard features. Write today for more information.

EQUIPMENT DESIGNED WITH YOUR PROFIT IN MIND

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The OSGOOD COMPANY
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AFFILIATED WITH THE GENERAL EXCAVATOR CO.

POWER SHOVELS, CRANES DRAGLINES, CLAMSHELLS PILE DRIVERS & BACK HOES CRAWLERS & MOBILCRANES DIESEL, GASOLINE OR ELECTRIC POWERED CAPACITIES ½ TO 2½ CU. YD.

Distributors: General Machinery Co., Spokane 1, Wash.; Standard Machinery Co., San Francisco 24, Calif.; Stratton Agencies & Machinery Co., Vancouver, B.C., Can.; Western Equipment Co., Portland and Eugene, Ore.

Hoo Hoo Revival in British Columbia

At a recent concatenation at Vancouver, B. C. more than 100 kittens were initiated, and officers installed.

W. Howard DeCew is the president of the Vancouver branch, whose original number "48" has been restored. W. H. McLallen, Capilano Shingle Co., is vice-president; Leo Sweeney, Sweeney Cooperage Co., second vice-president; Robert Malkin, R. E. Malkin, Ltd., treasurer; William Manson, Salmon River Logging Co., registrar. Directors are Cyril Wheatley, Albion Lumber Co.; Lloyd Roberts, Alaska Pine & Cellulose, Ltd., and H. J. Mackin, president, Canadian Western Lumber Co.

Arthur Geiger of the Supreme Nine, Tacoma, attended the meeting in Vancouver at which Hoo Hoo came to life.

Hoo Hoo plans a big meeting in Vancouver November 15 when an aggressive program of activity will be presented, based on the suggestions of members as to how the organization can supplement the work of the established trade associations in advancing the best interests of the forest industry.

Wins Grading Contest With Score of 90.975 Percent

J. M. Mooney, mill foreman of the B.C. Forest Products Ltd., Victoria division, won the British Columbia lumber grading title this year with the highest mark ever recorded in these annual competitions—90.975 percent. Second prize went to N. Midtal, PLIB inspector at the Eburne Division, Canadian Forest Products. Fred Porteous, PLIB inspector at Lions Gate Lumber Co., took the third award, and supplementary prizes went to Rod Bourke, grader at Alberta Lumber Co.; L. Sawkins, grading supervisor at B.C. Forest Products Vancouver division, and S. A. Rodeck, stock-taker at B.C. Forest Products Cowichan Division. This year's competition was held at the Chemainus Sawmill Division H. R. MacMillan Export Co. and was sponsored, as usual, by B.C. Lumber Manufacturers Association.

Idle Mill Reopened

The Portland Manufacturing Company, Portland, Ore., is now operating the plant of the Portland Lumber Mills which shut down nearly a year ago. The plant will be operated as a division of the Portland Manufacturing Company. Duane Autzen is in charge of the operation. Gordon Coward is superintendent.

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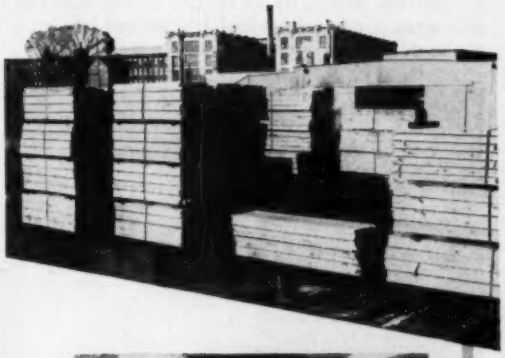

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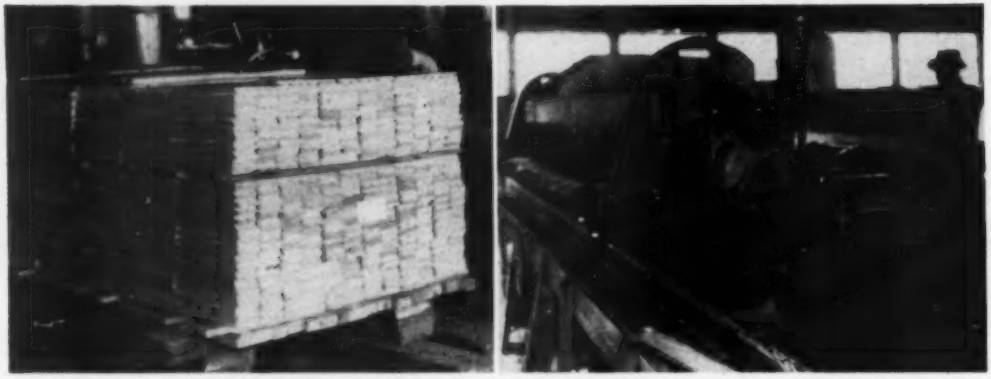
PREFABRICATION

Louisiana company develops technique for intensive utilization and chemical treatment of wood used in large scale construction of houses.



Left: Scraps of 1x4 are cut clear and converted into 14-inch bevel sidings from which window awnings are made. Right: A Maroon-Johnson (Minneapolis, Minn.) multiple equalizer that makes square end lumber pieces at Crawford's Gloster, Miss., mill.

Extended use of chemical treatment to stabilize wood used in new residences has attracted attention to "Gentilly Woods," a major New Orleans realty development the buildings in which are being erected with prefabricated material from Crawford Corp., of Baton Rouge, La. a subdivided 306 acre plantation tract previously held intact within the city limits, Gentilly Woods' 1423 houses ranks as largest in the South.

While 75 designs and 13 floor plans are offered, every structure has uniform creosote pressure treated sills, and an immersion of all siding, exterior and interior millwork, shelving, cabinets—in fact all exposed trim—in Woodlife, a toxic water repellent produced by Protection Products Mfg. Co., Kalamazoo, Mich. This chemical protects the house members against decay, blue stain, moisture absorption that brings swelling and shrinking, and termites. Woodlife contains pentachlorophenol, tetrachlorophenol, and 2-chlor-orthophenylphenol.

The ingenuity of industry in applying the architects' skill has produced many an attractive dwelling the prefabrication of whose members has both reduced hand labor and resulted in defect free lumber. The Crawford Corp., whose principal is W. H. Crawford, has shipped prefabricated houses to all parts of the world from its Baton Rouge, La., plant. Architectural design is provided by J. Wesley Leake, AIA.

Much of the assembly work is effected at Baton Rouge, and here the 3-minute cold immersion of "Woodlife" is effected. R. L. Mullins is treatment foreman; and Lawrence L. Tyson, as production manager, backs up the strict supervision of all phases of the operations.

The "Woodlife" treatment is effected in either of two vats, the most frequently used being 5-feet wide, 17-feet long, and 5-feet 6-inches deep. The vat is below floor level. Lumber for treatment is loaded on shop trucks 3-feet 8-inches long and

Top: Dipping lumber in WOODLIFE at the Baton Rouge, La., prefabrication assembly plant. The vat is 5 feet by 17 feet, and is 5-feet 6-inches deep. A Rotary Lift Co. automobile type lift submerges the load. Bottom—Left to right: R. L. Mullins, treatment foreman, and Lawrence L. Tyson, production manager for Crawford Corp.; R. E. Cotten, cut-up plant foreman; and W. B. Hulsey, planer mill foreman, at Gloster, Miss.

having four 6-inch swivel casters. These are run onto a Rotary automobile lift after the steel package bands are cut and binder chain passed loosely around the load. After immersion, the loads are run over floor gratings for drainage of chemical into the pan underneath, thence into the vat.

Lumber used comes from the company's own mill at Gloster, Miss. Logs are purchased, put through a conventional sawmilling and drying. Then lumber goes either to a molder or a Yates-American A-20 matcher, thence straight back to a 200-foot long Jeffrey #130 turtle back chain equipped conveyor running the full width of the building. Back of the planers is a short conveyor serving a double rip-saw installation.

Pieces are pulled off the conveyor in sorts into a large area to which Ross and Hyster straddle and Hyster lift trucks have access. Lumber-pieces reaching conveyor end pass through a Mereen-Johnson Machine Co. (Minneapolis, Minn.) multiple equalizer that makes square cut ends. An average 1½ million feet monthly goes through the planers. W. B. Hulsey is planer mill foreman; R. E. Cotten, cutup plant foreman. Coming back across the front of the building are two single and two double cutoff tables with swinging saws, a band resaw, two rip saws, and two #276 Mattison Machine Works (Rockford, Ill.) molders.

The principal task here is to produce as many assembly parts of clear lumber as possible. One product salvaged for use from in between knots in 1x4's is a 14-inch long bevel siding used in making window awnings. Another product, from variable length thin strips, is window and door screen molding.

Kitchen cabinet parts of B&Better, as well as Grade "A", are produced in cut-to-length pieces that make up an attractive installation with sliding glass doors. The finished cost here compares with swinging doors and affords the added household convenience. This installation is alternate to steel.

Lumber pieces that do not cut up usefully are sold to a wire bound box maker 50 miles away, so even that waste is saved.

Re-Emphasing the Lumberman's Wide Readership

This industrial journal's publication of an article (in April issue) covering in detail the activities of P. L. Logging Co. at PeEll, Wash., sparked an interesting cross-continent acquaintanceship.

The P. L. article, featuring "Men, Methods, and Equipment" (TL's basic editorial pattern), carried editorial information and photograph of Warren E. Crosby, who has a rural role as bureau scaler and company bookkeeper. Another Warren E. Crosby, clerk (he also keeps books and at times has worked as timber scaler), Great Northern Paper Co., Ashland, Me., noted the common bonds of name, professional activities and even similarities in personal appearance.

Subsequent correspondence between the Washington Warren E. Crosby and the Maine W.E.C. disclosed one discordant aspect—the Northwestern scaling was on board-foot basis while the Northeastern by cord measure.

Incidentally, the Western Crosbys descended from forebearers of those who migrated from Maine a century ago. As yet no relationship between the two individuals has been established.

Another incident indicative of reader following recently came to attention of the staff.

TL's comprehensive article on "Why Install a Resaw," featuring a 62" Turner band resaw addition at West Mill of Long-Bell Lumber Co., Longview, Wash., disclosed operation of the unit of feed speeds to 588 lineal feet per minute. A mill operator in AUSTRIA questioned the possibility of such speed. In fact, he had personally been trying unsuccessfully to approach such feed speeds in his own plant. He wrote to the president of one of the large saw-filing machinery manufacturers to check the accuracy of TL's figures. The figures were correct.

Michigan Firm Builds Mill in Idaho

The William Berklund Forest Products Co. is building a new electric sawmill at Cottonwood, Idaho. This will be a solid circular mill and O. C. Berklund advises the LUMBERMAN that the mill will have a capacity of about 30,000 feet per day. Plans contemplate construction of a planing mill and a sash and door plant and the establishment of a retail yard.

The company has been operating at Big Bay, Mich. for the past twelve years and has about a year's run left. Mr. Berklund states that when through in Michigan, the company will move its logging equipment to Idaho and log for the new mill.

Wm. Berklund is president; C. J. Berklund, manager; W. E. Berklund, logging manager and forester; Julius Kitscher, sawmill superintendent.

Named Railroad Forester

Herbert B. Attaway, Jr., has been appointed forestry agent for Atlantic Coast Line Railroad, with headquarters at Wilmington, N.C. Previously he was with West Va. Pulp & Paper Co., and with U. S. Forest Service in Washington state.

WOODLIFE Water Repellent Preservative helps assure the future of Gentilly Woods . . . 1423 homes built by Crawford Corp. of Baton Rouge, La. WOODLIFE means protection against Fungus Decay and Termites and stabilizes the wood.

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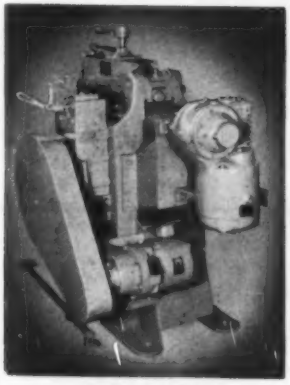

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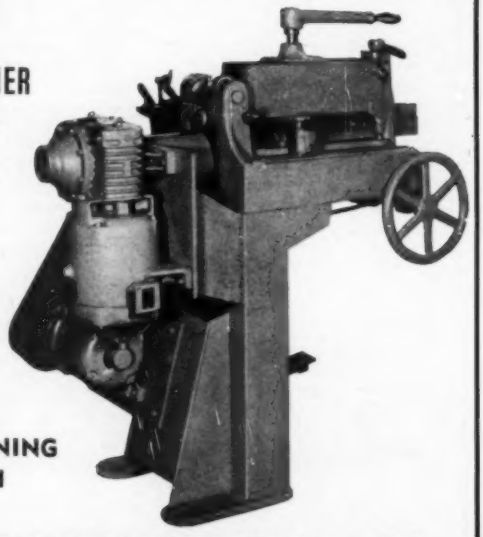

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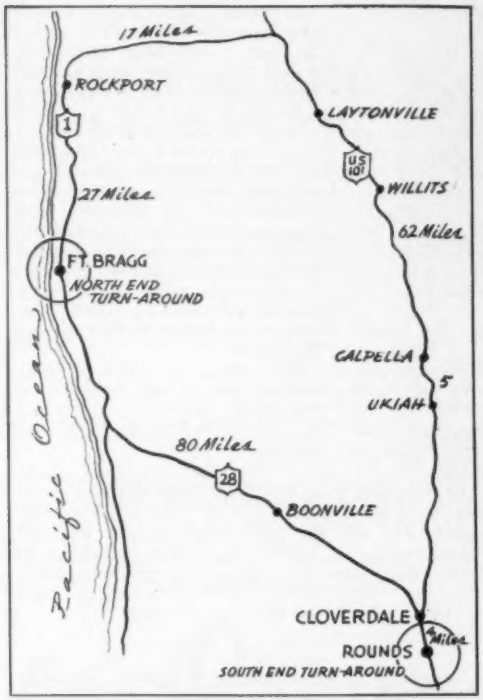

Map showing the route over which trucks are operated by the Rockport Redwood Company in a shuttle service between Rockport, Cloverdale and Rounds, California. Trucks and trailers are on the road 24 hours a day, six days a week, hauling peeler logs, pulp logs, lumber and supplies.

Top: One of the 16 sets of Reliance trailers, owned by Rockport Redwood Co. This load of 51,800-lbs. of peeler logs will be hauled from Rockport to the Calpella plant of the Coast Plywood Mfg. Co. About 25M' of peelers is shipped out daily. Below: left to right—Howard French, transportation supervisor, and Dwight Rounds, Rockport Redwood Co., Rockport, Calif.

Sixteen sets of Reliance lumber trailers, and eight tractors—five Internationals and three GMCs are doing a big job for the Rockport Redwood Co., Rockport, Calif., hauling lumber, pulp logs, and peeler logs from Rockport-Cloverdale in a shuttle service that keeps the trucks and trailers on the road 20 to 24 hours daily, six days per week.

Peeler logs are loaded on a set of Reliance doubles, some 51,800 lbs. of peelers to the load and are hauled 79 miles through the mountains to the Calpella plant of the Coast Plywood Mfg. Co. About 25M' feet of peelers is shipped out daily with two tractors.

Howard French, transportation supervisor, is in charge of the system, which was developed by W. E. "Bill" Lawson, resident manager of Rockport Redwood Co. Incidentally Bill is one of those lumbermen who add so much to the interest of the business by constantly seeking new and better ways of doing things.

Howard states that more footage of logs can be hauled on a set of double lumber trailers than could be hauled if a regular logging dolly was used—over the highway, that is.

Said Howard to a LUMBERMAN field editor: "To better understand our trucking situation an historical picture of our growth might make the over-all situation more clearly understood.

"When the decision was made to process all of the Rockport Redwood lumber through the remanufacturing plant of Rounds & Kilpatrick at Rounds, Calif., just four miles south of Cloverdale on U.S. Highway 101, the management decided that the best way to control the flow of lumber from Rockport to Rounds was to have our own trucks.

"After careful study of operating limitations, weights, equipment and other factors, it was decided that tractors pulling sets of double trailers would enable us to haul more footage, would enable us to unload and load during a normal day shift and with extra sets of trailers could operate our trucks around the clock.

"For this reason the first tractors were purchased and drivers living in Fort Bragg were hired to drive them. These men leave Fort Bragg in the morning, pick up loaded trailers in Rockport, and then go to Rounds via Ft. Bragg, Boonville, and Cloverdale.

"They return to Ft. Bragg around noon where the trucks are checked, serviced if necessary, and then the second driver of each team takes over the rigs, and completes a second round trip during the day. These round trips take 10 hours each over the rugged, narrow highways which we travel.

"At the time that this system was set up, it was evident that some provision must be made to make deliveries of our finished lumber to our customers in northern California. We therefore based one tractor at Rounds with two drivers, living in Cloverdale, and depending upon distances travelled, they delivered one to four loads to customers during the normal lumber yard business hours of 8 a.m. to 5 p.m. While one delivery was being made, the trailers for the next load are loaded, tied down and made ready for a quick pickup by the returning tractor.

"With one driver operating during the daylight hours, the other works at night, and makes a round trip to Rockport for a load of rough green redwood. As production picked up at the plant at Rounds, a second tractor was based there, and now we have three Internationals operating out of Rounds. They deliver finished redwood as well as other products direct from Rockport. Incoming tractors leave the loaded trailers at Rounds and return to Fort Bragg, and the Rounds tractors pick up the loads and move them on out to the customers.

"The next step was the peeler log business. We built bunks on four sets of Reliance trailers and assigned two of the Ft. Bragg based International tractors to this work. As when hauling lumber, they pick up loaded peeler trailers early in the morning (they are loaded during the afternoon of the previous day), and move them to Calpella via Laytonville and Willits.

"While they are on the road the other two sets of log trailers are loaded in Rockport with pulp logs for delivery to the rail head in Ft. Bragg. The team of drivers change in Ft. Bragg in the middle of the day, and before the afternoon drivers get back to Rockport with the empty pulp log trailers, the morning peeler trailers are loaded once more, and upon arrival, the drivers hook on to the peeler trailers and take them to Calpella for the second trip of the day.

"While they are gone, the trailers which took pulp logs to Ft. Bragg are loaded with peelers for the next morning's run. As the afternoon drivers return to Ft. Bragg via Rockport they drop the empty log trailers, and pick up loaded lumber trailers which they move to the Ft. Bragg rail-head for night unloading.

"On occasion we have hauled redwood logs to the Masonite Corp. at Ukiah on the same arrangement."

Every truckload of logs or lumber is weighed so that no overload fines are accumulated. All trucks are equipped with Servis recorders to show the number of stops.

Rockport Redwood Co. maintains no truck shops. A rigid maintenance schedule is maintained for all trucks and trailers, but the work is done by the International and GMC dealers in Fort Bragg. They service the trucks and trailers on a mileage basis, and check on the necessary repairs.

Once a week each truck is serviced. Tires on the trucks and trailers are mostly Goodyear, General, and Firestone. The International trucks are powered with Cummins diesel engines, and both Internationals and GMCs are equipped with Bendix-Westinghouse air brakes.

The average peeler load of logs is around 6,500 board feet; of pulp logs, 7M′, rough lumber 11,000′; surfaced fir 18,000′.

Daily shipments average about 25M′ of peelers; 22M′ of lumber to Fort Bragg; 14M′ of pulp logs to Fort Bragg; and 100M′ of lumber to Rounds.

"We have found it to our advantage to back haul in to Rockport heavy tractor parts, steel, cement, culverts, fire brick, etc., from the San Francisco Bay area on the trucks that have delivered lumber to Rounds or to our customers around the Bay", says Howard.

ADVANCES REVOLUTIONARY TREE HARVESTING PROGRAM

A revolutionary new method of tree harvesting has been worked out on paper by W. B. Edmondson, a commissioned Warrant Officer in the U. S. Marine Corps. Mr. Edmondson has furnished the LUMBERMAN with a copy of his plan.

In approaching the subject he proceeds on the assumption that only 33 percent of a tree, on the average, is converted into lumber. If his method were used all of the tree including the roots would be used. The only loss would be what he terms seasoning waste, amounting to five percent and about which Mr. Edmondson says nothing can be done.

Mr. Edmondson's plan contemplates pulling trees up by their roots and transporting the entire tree, roots, trunk and limbs to a central plant where the roots would be cleaned and removed and limbs and top taken off. All of this material would be converted into marketable products. The tree would then go to the sawmill where manufacturing waste would be recovered and utilized.

Mr. Edmondson believes a tractor and arch with powerful winches can be developed for logging purposes and that dried chips could be used for fuel. He has worked out in detail a method of logging and also a system for trimming the trees when brought in from the woods.

His program contemplates the production from waste of such products as charcoal, pure acetic acid, refined methyl alcohol, tars, oils, ammonium sulphate fertilizer. In fact he lists twenty-six possible by-products which he says is only a few of many. He estimates a gross return of over $5,000,000 from a plant which would have a lumber production of 65,000,000 feet.

The program is based on the theory that raw material will come from tree farms and that there will be a perpetual supply of wood.

Mr. Edmondson is at the moment primarily interested in developing the necessary machinery to implement the method which he has envisioned. He feels that equipment is already available which could be used without much change.

More B.C. Sawmills Despite Mergers

Despite a recent trend towards concentration of ownership of some of the larger producing units in the British Columbia lumber industry, there are more than three times as many sawmills in the province today then there were before World War II.

Figures for the British Columbia Forest Service indicate that in 1941 there were 557 sawmills in operation, while in 1950 there were 1,826, the largest number ever listed, there having been a fairly consistent increase in the number of mills in the past decade.

The number of shingle mills operating in British Columbia has been more or less constant, the average for the past ten years being 63 and the actual number listed as in production last year being 65, four more than in 1949 but 11 less than in the peak year 1941.

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Lumber developed from making flitches for veneer is turned into profits by the Frick edger, operated by the mill off-bearer.

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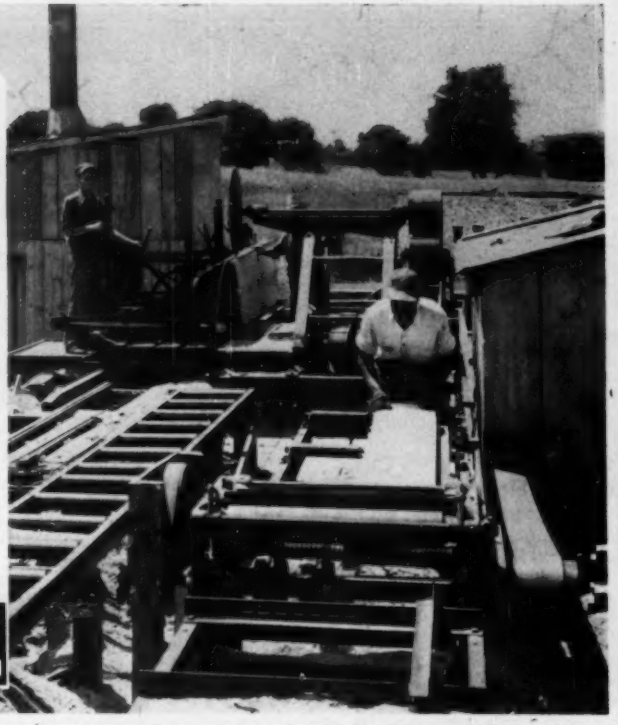

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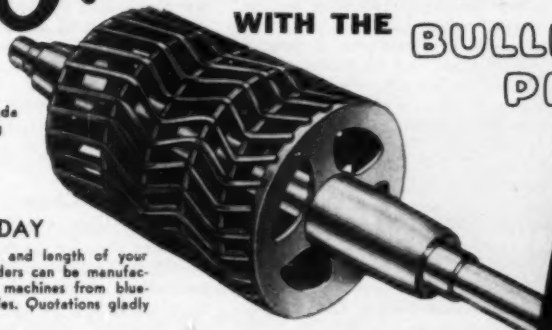

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C. D. Johnson Lbr. Corp. Names New Officers

Robert F. Johnson has been named president and board member of C. D. Johnson Lumber Corporation. He succeeds his brother, Dean Johnson, who died with another brother, Ernest, in a California air crash on August 24.

From 1932 to 1941, Robert Johnson worked in various capacities in the corporation's Toledo, Oregon, mill and woods operations. He was appointed assistant general manager at Toledo just prior to World War II. During and after the war he headed Prefabricated Engineering Co., which manufactured prefabricated homes for various governmental projects, including the atomic energy project at Hanford, Washington. More recently he has engaged in the general contracting business as head of Robert F. Johnson and Associates with offices in Portland and Idaho Falls, Idaho. He is a graduate of the University of Oregon.

Robert E. Flowerree, Jr., has been appointed vice-president and sawmill division manager. He has been associated with Johnson's Toledo operation for six years in all departments of the mill's manufacturing operations. A native of New Orleans, Robert Flowerree is a graduate of Tulane University and served as a Lieutenant in the U. S. Navy during World War II. He succeeds R. P. Richardson who died at the Johnson brothers' funeral on August 28.

L. H. McReynolds, associated with C. D. Johnson since 1924, is now vice-president in charge of allocation of shipping. Prior to joining the firm's Portland offices, he was associated with the Peninsula Lumber Co. of Portland. Mr. McReynolds has been a resident of Toledo for the past 21 years. He is a graduate of Oregon Institute of Technology and the Northwest School of Commerce.

C. D. Johnson, Jr. is the firm's new secretary and treasurer, and will continue to function in his capacity of comptroller. Prior to joining the family business two and a half years ago, he was employed by the First National Bank of Portland and Crown-Zellerbach Corporation. He attended Cal. Tech. mechanical engineering and business schools, and served with the Navy during the war.

Newly appointed to the C. D. Johnson board is Carl C. Jacoby, in charge of the corporation's logging and forestry operations. Mr. Jacoby joined the firm in 1928 after leaving Inman Poulsen Lumber Co. in that year. He is a graduate of Oregon State College, and the holder of one of the first degrees ever granted by that institution in the field of logging engineering.

George R. Birkelund of Baker Fentress & Company of Chicago fills the newly created position of chairman of the board of C. D. Johnson Lumber Corporation.

Western Forestry Animal

The program for Western Forestry & Conservation Assn's. 42nd annual conference, to be held Nov. 28-29-30 at Multnomah hotel, Portland, Ore., keynotes Forestry Problems in Western Forests. Opening day's session seeks answers to the question, "Has the timber-wealthy West the forest resource in sufficiently abundant supply to sustain the pace of technological advancement and the phenomenal growth of the forest industries?"

As pointed out by Walter Neils, president of the association, this organization "stands unique among all forestry organizations, in that its annual conferences have become known traditionally as a clearing-house where through frank discussion, and in a cooperative spirit, thoughts are exchanged and solutions sought to perplexing forestry problems."

Headlining the program, C. D. Orchard, deputy minister of lands and forests, British Columbia tells of "The Year in British Columbia" and E. W. Tinker, executive secretary of American Paper & Pulp Assn., treats on "Probable Influences of Pulp and Paper Development on Future Forest Industry".

The program will be packed with pertinent forestry information from the President's Address opening to closing with joint session of W.F. & C.A., Western Governors, and Forest Industries Council. Among the subjects to be discussed are Slash Burning; Responsibility for Restocking; Forest Insect Control; Fire Fighting Equipment and Techniques; Development of Tank Trucks.

Springfield Chemical Plant in Operation

By mid October the Oregon Wood Chemical Co., Springfield, Ore., was converting sawmill refuse wood to wood-sugar solution for fermentation of alcohol. Charles B. Hudson, Jr., president of the firm, said the sugar runs have proven successful and that alcohol production was expected to begin within a very short time. Continuous production is now possible, according to Mr. Hudson.

By the organization's new process, cellulose in the wood is converted to sugar by pressure cooking with dilute acid. The resultant sugar solution is neutralized and yeast grown on the sugar.

Faster Pond Bucking *SAVES* Man Hours!

With the new *Wide Kerf Chain* bucking logs to length in the mill pond is a simple, speedy matter. *L-M Pond and Deck Saws* are bucking 40-inch logs to length in less than 60 seconds per cut. Gas or electric power available. Bar length available (in stock) 3 to 10 feet.

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L-M electric driven chain saw bucking logs to length in 15-acre mill pond of Long-Bell Lumber Co., Vaughn, Oregon. L-M unit has 84 inch bar using Atkins chisel bit chain powered by 10 hp. motor. Photo courtesy The Lumberman

Portable electric chain saws previously manufactured by E. C. Atkins & Co. are now manufactured by L-M Equipment Co. . . . giving us a chain saw for all types of cutting.

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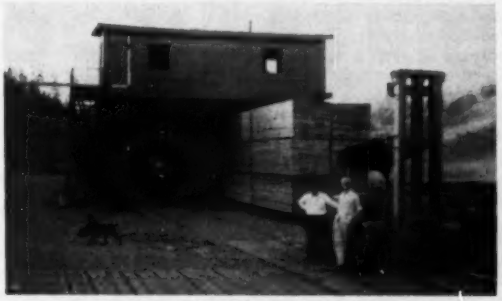

Lumber is stacked flat edge-to-edge in solid or unit packages for the Moore cross-circulation system.

MOORE DRY KILN CO.

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BRAMPTON, ONTARIO — NORTH PORTLAND, ORE.

Write for descriptive literature and a copy of latest "Moore Facts" bulletin giving a list of users.

MOORE DRY KILNS

CROSS-CIRCULATION — INTERNAL FAN SYSTEM

Left: A Jackson Lumber Harvester in operation in a Douglas fir stand near Lebanon, Ore. Note logs in foreground and lumber in background. The mill is powered with a Ford engine. Right: William Morrows Harvester operating in Northern Idaho. Here a group of farmers are assisting a woodlot owner harvest his timber crop. Thirty inch log on the carriage. Note leveling jack in foreground and chain at right which carries sawdust away from the rig.

Jackson Lumber Harvester

"I look for increased activity of our highly portable trailer sawmills as stands of commercial timber become scattered and more farmers come to realize the potential dollars in their neglected woodlots," says William Burgess, northwestern representative of the Jackson Lumber Harvester Company located in Corvallis, Oregon.

Harvesters are 32 feet long by eight feet wide, weigh two tons and are mounted on a two-wheeled trailer. Part of this length can be folded on the body when moving from set-up to set-up. The whole machine is so compactly engineered that 45 m.p.h. can be made with it on a good road.

Preferably, a ton and a half truck should be used to haul a harvester, carry the separate power unit of at least 100 h.p. rating and the speed reducer assembly. The last is required to give a satisfactory saw speed of 500 r.p.m. transferred to the harvester by a 50-foot endless belt run over two unique rubber-tired pulleys.

The 18-foot-long carriage travels on a 32-foot-long guide rail to make high-quality lumber, at the rate of 1,000 bd. ft. per hour with four men, from logs 16 to 22 feet long and under 30 inches in diameter. Saw and carriage are mounted on a frame made of tubular steel electrically welded to keep the saw within an alignment tolerance of 5/1000 inch.

Locating a harvester in a woodlot or relogging area it is claimed that it can be accomplished in as little time as 30 minutes with the aid of built-in leveling jacks. A somewhat shorter time is all that is necessary to disassemble the gear for moving to a new location.

Several hundred of the machines are in operation in the East, particularly south of the Mason-Dixon line. But in the last five years it is said at least 17 harvesters have gone into business between the Rocky Mountains and Pacific Ocean in the four northwestern states, mostly in the farm woodlot trade.

However, the Harvey Lumber Co., Idanha, Oregon, finds a harvester a valuable adjunct to a permanent mill; William Burgess, western agent for Jackson Lumber Harvesters, and Charles E. LaRue, Lebanon, Oregon, use harvesters on relogging jobs; Paul A. Kellstedt of Farm Foresters, Inc., Portland, Oregon, purchases logs on the rollways in a farm woodlot and converts them by harvester into lumber on the spot.

The harvester at Kalispell, Montana, is currently engaged in salvaging timber that would be flooded behind the Hungry Horse Dam project of the U. S. Bureau of Reclamation near Columbia Falls, Mont.

Foresters see in harvesters an ideal way of growing trees on farm lands unsuited to cultivation for crops and, at the same time, affording to do so. Farm foresters are actively helping the two harvesters in northern Idaho. The last are owned by Morrow's Lumber Harvester Service, Coeur d'Alene, and the Clearwater Timber Harvesting Service, Orofino.

The soil conservation district headquartered in Newcastle, California, purchased a harvester for the use of its farmer-cooperators.

New Coos Bay Mill

A new firm known as the Riverside Lumber Co. has started a small mill at South Bend, Ore. Owners are Roy Wadhams, manager, Phil and Elmer Stout. All three were formerly with the Port Dock Lumber Co., which burned. The plant has a circular headrig but a Swedish type gang is to be installed.

JACK S. KERR, of New Zealand Forest Service, recently concluded a 4-month visit to U.S. and Canada. He sees possibility of his country's adopting some American lumber manufacturing methods.

Studies U.S. Methods

Jack S. Kerr, of utilization branch, New Zealand Forest Service, Rotorua, N. Z., concluded a 4-month visit to Canada and United States in September. He told THE LUMBERMAN the trip was made to learn modern methods of surfacing knives and saws, and also to become acquainted with modern sawmill design and engineering, and new developments in sawmill machinery.

According to Mr. Kerr, the New Zealand Forest Service has been practicing forest management for nearly 50 years. Pinus radiata was introduced from California and Douglas fir and Ponderosa pine from the Pacific Northwest. All of these are doing well, the P. radiata, "growing fantastically well, has exceeded all expectations."

About 12 years ago the N. Z. forest service became interested in utilizing the timber, introducing Scandinavian processing methods and equipment at that time. Kerr now sees possibility of adopting some of the American lumber manufacturing machines and methods.

Kerr visited saw manufacturing plants both in Eastern and Western states and spent considerable time at the Portland, Ore. headquarters of Industrial Engineer W. H. Rambo.

A new firm known as the **Chiloquin Forest Products Inc.** is building a new mill at Chiloquin, Ore. The plant is expected to have a capacity of 50,000 feet per day.

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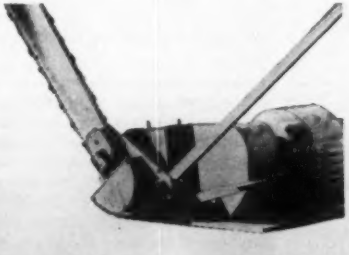
LOG MASTERS are available with 7½ h.p. electric motors in 4', 5' and 6' bar lengths —and with 10 h.p. motors in 6', 7', 8' and 10' bar lengths.

Gas Models Also Available



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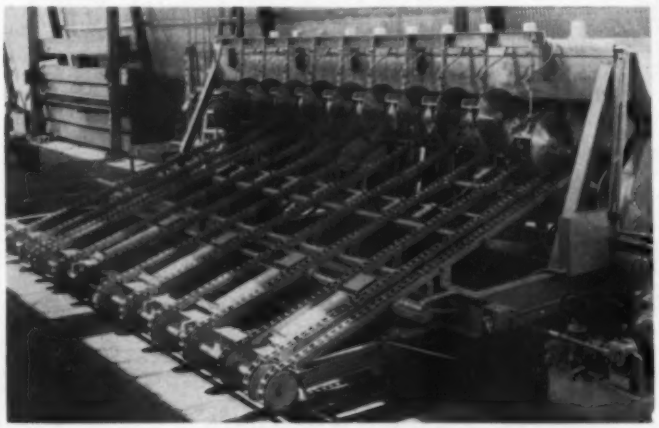
Hardel Plywood Co. to Expand

According to Frank Morris, general manager, stockholders of Hardel Plywood Company, Olympia, Wash., have approved a 4-point improvement and expansion plan consisting of increased veneer drying capacity; addition of one new boiler; installation of a heavy duty, extra heavy pressure, steam heated hot plate press suitable for processing exterior and plastic coated plywoods; and, necessary extensions of existing buildings providing space to accommodate new equipment and some 40 or 50 increase in payroll force. It is estimated that four or five months will be required to consummate the program.

Pole Blight in BC

White pine forests of the British Columbia interior and in scattered areas along the coast have been ravaged during the past summer by "pole blight," a somewhat mysterious disease now being studied by the forest service. A fungus known as scopularia is suspected as the cause. It first showed in Idaho forests 20 years ago and caused considerable damage.



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In case you are looking for the last word in a trimmer, Peters has it for you here . . . Selective . . . Automatic . . . unit constructed to move in fast and save plenty on installation costs. All inside wiring and piping. Just hook her up and go to work.

WOW! WHAT FEATURES

- Automatically trims any length lumber at both ends simultaneously.
- Line-up rolls automatically move lumber to line-up guides.
- With hydraulic model, speed of feed chains can be varied.
- Electric control provides high-speed selection.
- Saws not in use stay up—do not ride over stock.
- Ladders suspended independently from beam.
- Optional: Air or hydraulic . . . one or two man operation . . . line shaft drive or individual arbor motors.

THE Peters COMPANY

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175,000 Foot Mill

(Concluded from Page 54)

lubrication facilities, and a complete tire reconditioning department. The specialty processing machinery in tire department includes a Heintz tire retreader, Heintz vulcanizer, Ke-Haw-Ke tire machine, Brown balloon tire mould, and other smaller equipment.

As far as the truck-trailers are concerned, the work day starts at 4:30 in the morning, at which time the first truck (loaded with empty trailer) leaves the shop headed for Bates to pick up its load of lumber. The other three trucks follow, taking off from shop at half-hour intervals.

The first truck returns with its initial load at about 10:30 a.m. After the lumber is unloaded, trailer loaded on truck, and truck refueled, it returns for the second load at 11:00 a.m. This original unit returns loaded about 5:30 p.m. and leaves for its third trip about 6:00 o'clock, a pattern subsequently followed by the other three trucks.

Drivers on these trucks make just one round trip per day—12 trips per day, 12 drivers.

Lumber is both loaded on and unloaded from the trucks and trailers by Hyster lift trucks. At the unloading terminus, the lift trucks deposit the lumber at head end of dry chain (for grading, sorting, pulling, and piling) or in a live-storage area.

After the lumber has been unloaded from both truck and trailer, the trailer is lifted onto the truck bed by the Hyster lift truck for the return trip.

The hauling efficiency is augmented by carrying payloads that approach the legal maximum allowed on the public highway system. At loading end of the haul Black & Decker portable scales are used to check the load before moving the truck-trailer unit onto the highway. The official haul-load is determined at a Fairbanks-Morse platform scale at the Baker plant. This lumber transport is on a per 100-pound basis rather than on board footage rate.

The narrow-gage rail system, with a third rail added to handle standard-gage rail cars, continues to be used at Oregon Lumber Co.'s Baker plant. With this set-up the company's 35-ton Davenport narrow-gage switch engine, powered by "Caterpillar" V8 D 17,000 diesel engine handles switching of empty and loaded cars about the plant.

New Equipment Increases

(Concluded from Page 79)

This plant improvement program is said to have boosted one-shift production output at Wagner Bros. plant to about 125,000 board feet. Logs on which the plant operates are purchased delivered at the mill pond.

Lumber transportation from sawmill to remanufacturing plant and planing mill, and the handling in the yard, is by two lift trucks—one Hyster, one Ross—and a Hyster lumber carrier. All lumber going through the planing mill is treated with Chapman Permatox. Application of the fungicide is made by spraying the finished boards with the mixed solution as they emerge from the planer.

Lumber shipment is by rail, truck, or cargo.

Partner owners of Wagner Bros. Lumber Co. are C. E. Imus, G. M. Moawad, and Jerry Imus. Key plant personnel, in addition to Plant Superintendent Dallos, includes J. E. Hughes, head filer; John E. Lusk, master mechanic, and Sparky Nesmith, yard foreman.

Technique Of Logging

(Concluded from Page 87)

woods movement, keeping the trucks on roads or good woods trails as effecting a substantial savings. Keeping the trucks "out of the woods" has increased truck tire life by 50 percent (and tires went up 50 percent in price in 18 months). Since the company keeps 500 tires "on the ground" the savings amounts to real money. Another result is that the company finds it can recap 50 percent of the tires since their carcass is not ruined by woods driving. The trucks have longer life. Some are in their fifth year, and their cabs and fenders are not battered out of shape. This last factor causes the drivers to have more respect for their trucks; use them more carefully.

Major Henry A. Maas, for many years a sawmill manager for the Kurth interests, is in charge of woodlands and wood procurement for Southland. Johnnie Bates is his assistant. L. S. ("Bingo") Milwee, for many years a logging superintendent with the Kurth organization, is logging superintendent for Southland. T. B. ("Burl") Berry is a timber buyer; Hayes Smith, a wood buyer and scaler; and Mrs. Maurine Moncrief in charge of office records.

Company equipment is serviced in a large, well enclosed yard with large fully equipped shop.

Crossett Lumber Co. To Install Log Barker

Installation of a log barker at the Crossett Lumber Co.'s sawmill, Crossett, Ark., is expected to have the equivalent of 14,000 cords of wood annually by furnishing that volume of chips to the paper mill, reducing the amount taken from the forest. The announcement of the plan to install a barker was made by Peter F. Watzek, president of the Crossett Companies.

The decision to go ahead with the barker installation was made following a tour of the Pacific northwest made by A. T. McDonough, manager of the Crossett sawmills. Outside of Camp Mfg. Co., operator of a sawmill and paper mill at Franklin, Va., Crossett will be the first plant in the South to install a log barker.

While the make of barker was not announced, it is believed to be a unit produced by the Hansel Engineering Co., Vancouver, B. C.

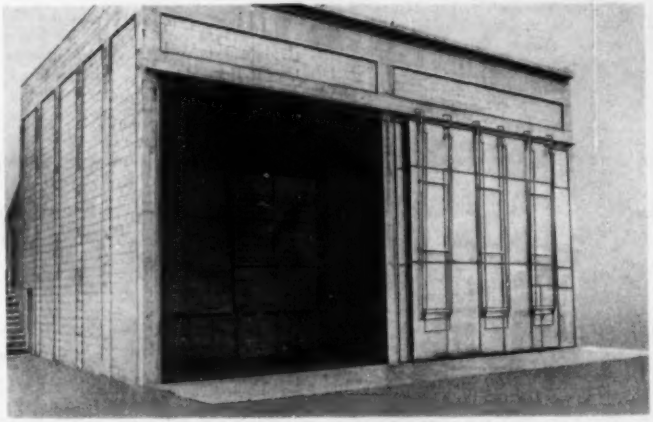
Reichold in Brazil

Henry H. Reichhold, Chairman of the Board of Reichhold Chemicals, Inc., New York City, announces the signing of an agreement whereby RCI's complete line of synthetic resins for the paint and varnish, plywood, paper and textile industries will be manufactured in Brazil by Resana S. A. Industrias, Quimicas, Sao Paulo.

NORTH COAST

"DIRECT-FLO"

DRY KILN



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Loggers have found by experience that lightweight blocks have faster pickup and less "flywheel" action when lines are slacked. Properly engineered with correct weight distribution; streamlined with proper balance; and built with the proper selection of materials —the lightweight block is stronger, safer and will hang against the tree properly. ROPE MASTER, the original streamlined block always offers the lightest weight.

Paul

Get Waste Wood

(Concluded from Page 94)

able slab supply several contractors are engaged in production of 4-foot wood from company-owned cutover lands, using several different techniques.

Les Fiddick, for instance, owns and operates a portable cut-off saw mounted on rubber tires. For yarding, an A-frame and donkey are set up with the portable saw placed under the direction of the road being yarded. The log or turn is landed onto the saw deck, where it is cut into 4-foot bolts and conveyed into cord cradles for loading onto the truck. This is a two-man operation, including the truck driver, yet production sometimes runs as high as 12 cords a day, with the average 6 cords at the time of THE LUMBERMAN'S visit.

Horse Skidding

Horse skidding and hand labor bucking and loading systems are also used, one of them being run by D. E. Halvorson, formerly of the Pine Falls country in Manitoba, who uses a horse for skidding. The ground layout or skidding is planned in such a way that it is possible, with a little additional work, to extend a rough truck road along the main skidding trail, enabling the truck to load at landings comparatively close to the stump and to keep the horse skidding distances to a minimum. A Dodge 3-ton truck is used for hauling. A PM Woodboss saw is used to buck the logs into 4-foot bolts at the truck loading point. Production from stump to pulp mill averages between two and three cords per man per day.

Four-foot pulpwood is loaded onto slings placed on the truck deck. Slings are constructed to obtain a standard piled cord. For payment, a solid wood content of 80 cubic feet per cord is used as a basis, and to maintain the 80 cubic feet figure, the production from various sources is check scaled at frequent intervals in the pulp mill yard. For purposes of source recognition, each contractor is assigned a paint color to designate his porduct. Check scaling at present is accomplished by measuring each bolt for both end diameters and calculating the total cubic content. An immersion or displacement tank has been considered, but plans are under way at present to install the dot photographic method for determination of wood content in cords.

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"the nimble block that stands up best!"
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Plywood Management Committee Named

Five plywood leaders have been elected to the top-echelon management committee guiding trade promotion for the 69-factory Douglas fir plywood industry of the West Coast.

Named to the committee were: H. W. McClary, general manager and sales manager of Anacortes Veneer, Inc., Anacortes, Wash.; H. B. Garrison, vice president and general manager of Evans Products Co., Coos Bay, Ore.; E. W. Daniels, director of sales for Harbor Plywood Corporation, Aberdeen, Wash.; Thomas B. Malarkey, president of M and M Wood Working Co., Portland, Ore., and C. E. Devlin, vice president in charge of sales for Simpson Logging Co., Seattle, Wash.

Daniels, elder statesman of plywood trade promotion, was reelected to his 14th consecutive term as chairman of the committee and Malarkey and Devlin were reelected to their places on the board. McClary and Garrison are newcomers to the group whose policy decisions are carried out for the manufacturers by Douglas Fir Plywood Association.

The 11-man committee which directs the program is made up of elected industry representatives who serve for a two-year term. Carryovers who were elected to the committee last year are Leonard Nystrom, president of Associated Plywood Mills, Inc., Eugene, Ore.; S. R. Black, vice president of Georgia-Pacific Plywood Co., Olympia, Wash.; Arnold Koutonen, general manager of the plywood division, St. Paul and Tacoma Lumber Co., Olympia, Wash., and Frost Snyder, president of Vancouver Plywood Co., Vancouver, Wash.

Also serving on the committee by virtue of the position they hold in the Douglas Fir Plywood Association are B. V. Hancock, association president and executive vice president of Cascades Plywood Corp., Portland, Ore., and O. Harry Schrader, Jr., association managing director.

Veneer Plant to Be Moved

Western Veneer Co.'s Sweet Home, Ore. veneer plant will be moved to Eugene late this year, according to Harold Jones, president. This plant, the original operating unit of Western Veneer, was installed late in 1945 to operate on salvage timber—making veneer of logs and defective trees left in the woods following logging. When first starting operation of the plant, the owners foresaw supply of timber in the area for 5 years operation, and have operated 6 years before moving to new location.

Mr. Jones says, "There is still a large amount of defective timber in the Sweet Home area, but its availability to us is too uncertain for us to maintain a plant here. . . . We do not feel that we are completely leaving this part of the country, as whatever salvage is made available to us will be used at our Lebanon plant."

Plywood Makers Unveil New Building Panel

A unique new panel material named Plyron combining a backbone of plywood with the smooth, tough surface of hardboard has been announced by west coast plywood manufacturers. The new building material has already proved successful for such diverse applications as concrete forms, flooring, cabinet doors and table tops. In its initial announcement on the product, Douglas Fir Plywood Association of Tacoma, Wash., said the advanced new panel is being produced commercially in 4x8-foot sheets by the

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Number 4 Armstrong resaw sharpener in operation at Sutherlin Timber Products Co., Sutherlin, Oregon.

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plants and experimentally by others.

Rigid standards of manufacture have been established for the combination material, states O. Harry Schrader, Jr., Managing Director of the DFPA, similar to those which assure plywood performance. This means, he said, first a strong, durable bond of all plies in the panel. Similarly, only hardboards of tested quality are applied as surfaces, and at present the Masonite Corp. of Chicago is the primary supplier of these sheets.

Plywood companies now in commercial production of Plyron are: Aberdeen Plywood Corp., Aberdeen, Wash.; Associated Plywood Mills, Inc., Eugene, Ore.; Crescent Plywood Co., Crescent City, Cal.; Hardell Plywood Co., Olympia, Wash.; Industrial Plywood Corp., San Francisco, Cal.; Kalpine Plywood Co., Klamath Falls, Ore.; Multnomah Plywood Corp., Portland, Ore.; St. Paul & Tacoma Lumber Co., Tacoma, Wash.; Simpson Logging Co., Seattle, Wash., and Western Veneer Co., Eugene, Ore.

New Veneer Plant in Operation

The new veneer plant of the Standard Veneer & Lumber Co., on Highway 101 north of Crescent City, Calif., went in operation in September. At an open house the company invited Del Norte residents to visit and inspect the new plant. A. Q. Morgan, at one time logging superintendent for the Bloedel-Donovan Lumber Mills on the Olympic Peninsula, Wash., is president and general manager of the operation. Dr Frank Wallace is vice-president and personnel manager. Don Loughry is a director and office manager. Some 200 employees are stockholders. Ray Torbenson is a director and secretary-treasurer.

The new plant has a Nicholson barker, a Coe lathe, two Coe clippers. The plant will have a daily capacity of about 35,000 square feet of veneer.

Vertical Grain Redwood Plywood

Vertical grain redwood plywood, the first manufactured for consumer use, went into national distribution under the Malarkey trademark during October, according to announcement by M. & M. Wood Working Co., Portland, Ore. Mass production of the vertical grain panels is now carried on at the organization's Eureka, Cal. plant, according to Verne Breitenbucher, vice president.

Plywood and Veneer News

C. A. Andrews is president of the Western States Plywood Corp., which has started construction of a veneer plant near Port Orford, Ore. Dan Paulstick is vice-president; Ernest J. Burrows, secretary-treasurer. This is a co-operative. The owners expect to get into production by April 1. They expect to add plywood equipment later.

The Columbia Plywood Corp., expects to get its big new plywood plant at Juneau, Alaska, into operation by the middle of 1952. The plant is expected to produce 30,000,000 square feet per year. T. A. Morgan, president of the Columbia Lumber Co., is president of the Columbia Plywood Corp.

Pacific Veneer Inc., hopes to have its new veneer plant near Crescent City, Calif., in operation soon. President is Loren Haugen.

Columbia Veneer Company, Kalama, Wash., has placed in operation a new 20 opening hot press.

The new cooperative plant at Concrete, Wash., known as the Skagit Veneer & Lumber Co., expects to soon start construction of its veneer plant.

Linnton Plywood Assn., a cooperative organization building a 6 million foot-per-month plywood manufacturing plant at Portland, Ore., aims at getting the green veneer end in production by December 1, according to John J. Oxley, general manager. Construction of the dry

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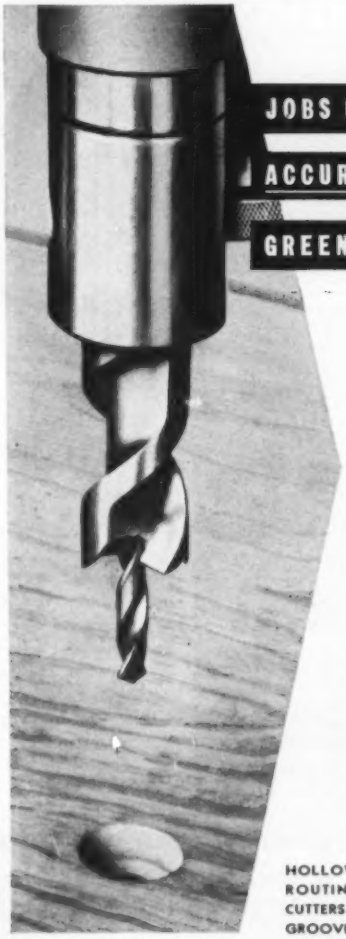

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SMOOTH enough to virtually eliminate wear and maintenance. Fingertip control provides rapid acceleration and precise speed variation to meet the most demanding sawing conditions.

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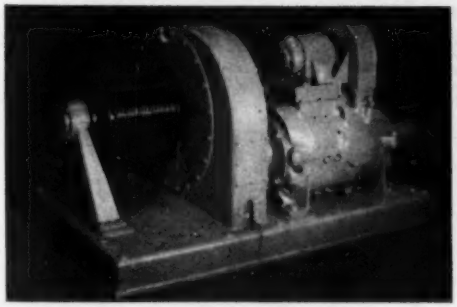

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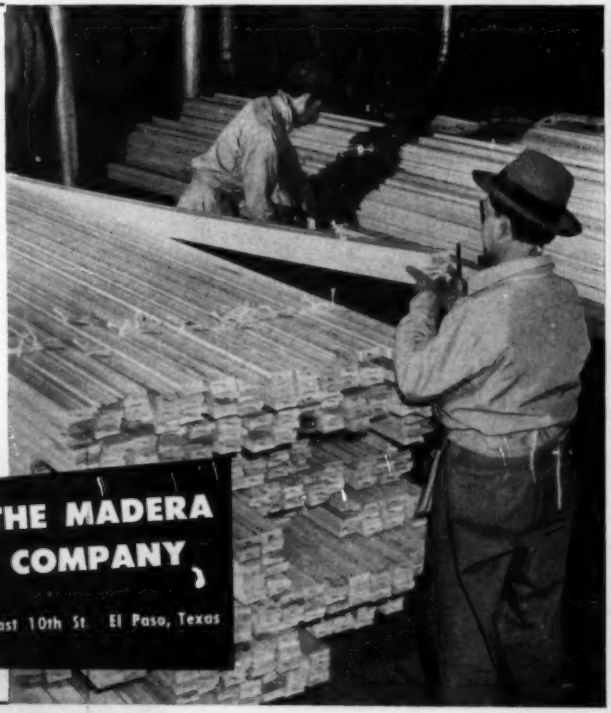


Latest News and Developments in the Machinery and Equipment Field

New Diesel Powered Locomotives

A logging locomotive unique in several respects is operating today on the railroad system of Canadian Forest Products, Ltd., at Englewood, in the Nimpkish country of northwestern Vancouver Island—a specially designed diesel-powered machine with hydraulic torque converters.

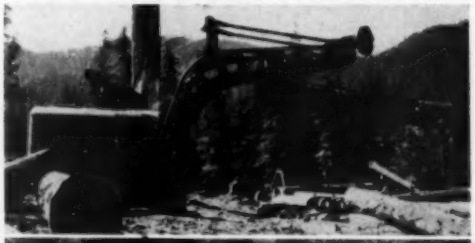
It is the first machine of its type to be built in the Pacific Northwest. If it does all the experts think it can, it may be the forerunner of many other diesel locies in the Pacific coast logging industry.

Tyee Machinery Co. of Vancouver, B.C., did the conversion and assembly job under the watchful eye of D. M. Denholm, chief engineer, and John S. Wilson, president, and Ronald Wilson. Mr. Denholm designed the machine and is largely responsible for its conception.

The machine has been built on an old 60-ton three truck Shay steam locomotive and makes use of the original line shaft, gears and pinions. In its present form it is a 50-ton two-truck unit, strictly modern in appearance and efficient in operation.

The builders believe that its main advantage over the conventional steam-users will be in its economy of operation and maintenance.

The power unit in the Canadian Forest Products locomotive is a Cummins model NHVI developing 400 h.p. at 2100 RPM, driving into Twin Disc hydraulic torque converters with reverse gear and two speed transmission (model D-RRT-11545-1). The drive of the primary shaft is by sprockets and roller chain encased in an oil-tight casing.



Top: Northwest Engineering shovel (model 80-D, is earning a fine reputation for itself as a log loader for Kosmos Timber Co., Kosmos, Wash. This past summer, operating in forest service timber near the base of Mt. Rainier, this shovel produced as high as 22 trailer loads in one shift (280 logs). This Northwest shovel is equipped with a gooseneck heel boom manufactured by Washington Iron Works, and is powered with a 165 h.p. Murphy Diesel. Below: Kosmos Camp #2 serves the Iron Creek area where the Northwest Shovel is operating. Left to right: Milton Shafer, Joe Rudolph, shovel operator; Wayne Smith, truck boss; and Cecil Brown, foreman of Camp #2.

Air for the air brakes, sanders, whistle, etc., is provided by means of Ingersoll-Rand air compressor driven by means of V belt and Twin Disc fluid drive V-belt pulley mounted on the drive shaft of a 2-71 General Motors diesel electric engine. This unit is housed in a separate compartment immediately behind the cab.

The controls for the engine throttle, the hydraulic and direct clutch operating positions are through Sperry fluid control valves.

Maximum speed in low gear with hydraulic torque converters fluid drive is about 20 miles an hour. With direct drive on level roadbed the speed is about 27 miles per hour maximum.

A radio telephone is mounted on the front panel of the cab within easy reach of the operator. There is also provision for fire fighting equipment, extinguishers with fog nozzles being mounted in the cab, the nozzles being provided with 50 foot high pressure armored hose.

Top: Cummins 400 h.p. diesel-powered locomotive with Twin Disc torque converters built for Canadian Forest Products, Ltd. by Tyee Machinery Co., Vancouver, B. C. Below: These men had a special reason to be proud of the locomotive. Left to right—Ronald Wilson, Tyee Machinery Co.; A. E. "Duke" Young of Twin Disc Clutch Co., Seattle; Robert Swanson, chief engineer of B. C. department of railways; D. M. Denholm, chief engineer, and John S. Wilson, president, Tyee Machinery Co.

Ships Presses to Finland and Mexico

Williams-White & Co., Moline, Ill., well known manufacturers of presses, have shipped one of their hot plate presses to Oy Wilh. Schauman, AB, Savonlinna, Finland. This press has a capacity of 1300 tons; 21 hot plates, 130x66 inches; three and one half inch openings. The press closes at 180 inches per minute.

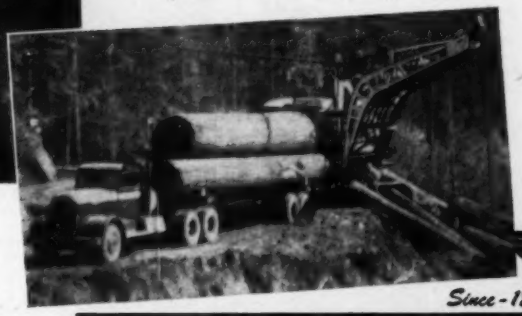
Williams-White & Co. has also shipped a big hot plate press to Mexico. It is the second of their presses that has gone to Mexican plywood plants.

Shown herewith left to right are Linwood S. McCord, sales representative for Peoria Chain Co., Portland; William Scott Robey, vice-president and secretary of Peoria Malleable Castings Co., Peoria, Ill.; and George E. Zweifel, Pacific Coast sales representative for Peoria Malleable Castings Co. Mr. Robey recently visited their Pacific Coast offices.

FOURTH WASHINGTON TRAKLOADER FOR Long-Bell

REORDERED AGAIN—after TL-15 at Ryderwood logs and loads 7,233,650 feet at $2.091 per M in nine months!

Proved by actual experience in the field, the Washington Trakloader delivers the mobility, flexibility and sustained performance that cut the cost of yarding and loading logs. Long-Bell Lumber Co., now has four Trakloaders, including the TL-15 at Ryderwood, Wash., shown here, a crawler mounted unit at Grande Ronde, Ore., one with rubber-tired undercarriage at Gardiner, Ore., and a fourth TL-15 just delivered to Vaughn, Oregon.



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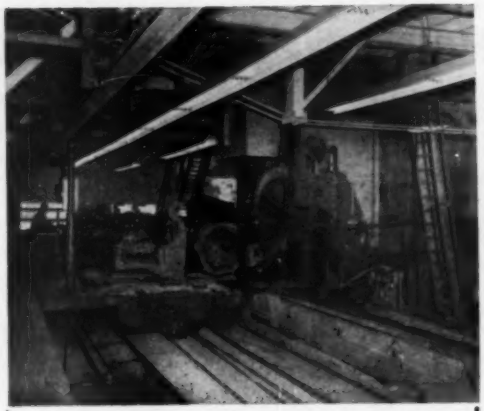

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4—Wheels completely stress relieved, no wheel failure such as occur so frequently these days. ☐

5—Large sliding posts precision fitted—no possibility of developing motion in these parts. ☐

6—Straining device absolutely frictionless and completely independent of sliding posts. ☐

7—Universal cast steel upper guide which is unbreakable. ☐

8—Mechanism of the straining device completely enclosed with no exposed screws or gears. ☐

9—All parts of the straining device far enough away from the saw for safety. ☐

10—The strain weight in the open so dirt and litter do not interfere with it. ☐

11—Lightest possible top wheel to eliminate objectionable overthrow. ☐

12—Maximum saw life and production. ☐

13—The complete band mill with necessary accessories, ready for installation, at price quoted. ☐

14—A NAME with 65 years of supremacy in building band mills throughout the entire world. ☐

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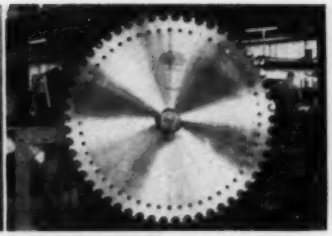
E. J. McClanahan, (left) Director and Vice President of Standard Oil Company of California, presented a gold watch to E. V. Burns, Portland District Manager for Standard in recognition of his completion of 30 years service with the company. P. L. Fahrney, (2nd from right) Vice President, and S. W. Warne, Marketing Department Personnel Manager, flew up from San Francisco with McClanahan to attend the presentation luncheon at the Arlington Club. Fahrney, who began his career with Standard in Portland, also presented a diamond set service pin to Burns who was employed as a service station operator in Portland on September 16, 1921.

Ted Dowling, owner and operator of Cascade Saw and Tool Company, is pictured with Mrs. Dowling alighting from the plane he now uses to serve his growing list of customers in the northwest. Dowling specializes in the sale of Cascade Tungsten-Carbide tipped saws; and he offers service on all makes of carbide saws. He maintains headquarters in Chehalis, Washington, and recently opened a Canadian shop at New Westminster, B.C. Dowling uses the plane to expedite sales and service calls on his customers among sawmills and plywood plants.

Take Blue Babe Resaw

Aloha Lumber Co., Aloha, Wash., recently took delivery of a Blue Babe resaw, 66" size. These are manufactured by Northwest Marine Iron Works, Portland, Ore.

RODERICK H. CLARKE, who has just been named salesmanager of the Sterling Division of the White Motor Co., Milwaukee, Wis. Mr. Clarke is a westerner having had extensive truck transportation experience in Southern California and in Montana. While in the Army from 1940 to 1946 he had numerous assignments having to do with motor transport.



Atkins Introduces New Saw

What is described by the manufacturer as a revolutionary improvement in circular saw design and performance has just been perfected by E. C. Atkins and Co., Indianapolis, Ind. The new saw is known to the trade as an inserted tooth mill type, is an innovation in that the blade is manufactured with stabilizing holes of 1 inch diameter in the center of each shoulder. These holes relieve rim strain, keep the shoulders straight and the bits in better alignment.

The stabilizing holes in the center of each shoulder of this new Atkins *"Silver Steel"* saw are located 2⅝" below the gullet line or bottom of each shank. These holes air-condition the rim, as well as the body of the saw blade, allowing no saw dust below the holes to the collar line. Saws operating free of dust will cut cool at all times it is claimed.

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- Complete mobility without dismantling
- Rarely needed replacement parts inexpensive and available
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- Performance proven by 15 years in the woods

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Just introduced is Disston's DO-101 one-man chain saw, a streamlined, silver-colored, greatly improved variation of the popular DO-100. Among the new features are the low-profile DF chain, more rugged crankshaft, and a narrower rail in greater variety of lengths. Disston Field Engineer Don Nielsen is shown putting the unit through field tests.

Huge new Williams-White hot press being installed in the M & M Woodworking Co's plant at St. Johns, Ore.

Disston's New One-Man Chain Saw

Henry Disston and Sons, Inc. of Philadelphia have introduced an improved one-man chain saw with a radically new fast-cutting chain.

Disston claims for the "F" a smoother cutting action and increased lateral stability. The chain, effective on all types of wood, employs a comparatively small tooth with a lowered cutting edge, shorter pitch and rounded guiding lug that accurately regulates the depth of the cut. Disston metallurgists and timber experts developed the new chain after two years' research.

Disston will continue to manufacture its standard "L" and "C" type chains. William P. Gillespie, sales manager of Disston's Chain Saw Division, said the improved DO-101 would cost slightly more than the DO-100. The latter unit will still be available with the standard 18" rail and either the "L" or "C" type chain—at $367.50.

Uses Logger's Dream For Up-Hill Logging

Richard Rossignol, Lolo, Mont., contract logging for Anaconda Copper Mining Co., Lumber Department, has recently purchased one of the new L.R.W. model Logger's Dreams. He is using this as a highlead unit for uphill yarding, two "Caterpillars" and a TD24 International for skidding on the tractor shows. The logs are loaded out from landings onto trucks and trailers by a "Caterpillar" diesel powered Maxi-mounted Oliver crane and a Bucyrus-Erie model 33B.

This Logger's Dream is powered by a Cadillac industrial gas engine driving through water-cooled Hydromatic transmission. It is a combination machine, designed for both yarding and loading, mounted on Chevrolet truck chassis; has 40 ft. steel boom with full-swing fairlead, ratchet hand brakes, hydraulic foot brakes, spring-loaded strawline brake, and winches for tightening guylines.

On a 1000 ft. yarding haul, the machine is currently harvesting 20 thousand feet per day on precipitous terrain. Relocation takes about two hours for tearing down and resetting of the Logger's Dream. It has mainline speed of 650 f.p.m. and haulback line speed of 1250 f.p.m.

Of the Hydromatic drive, Jimmy Bigelow, manager of Bigelow Machinery Co., Portland, Ore., from which the Logger's Dream was purchased, says it is not only fast and self-shifting, but saves on rigging damage and provides smooth, even power in the amount required.

Mr. Rossignol logs nearly the year around, averaging 80 to 100 thousand feet per day.

"Caterpillar" Strike Ends

The longest strike in the history of Caterpillar Tractor Co., Peoria, Illinois, plant has ended, with factory operations resumed on October 1. The strike was called July 30 by CIO-UAW Local 974. Company officials planned to have the Peoria plant producing at full capacity within a week. The loss in sales over two months was $75,000,000, according to a projected estimate. More than 22,000 production employees were idle during the strike.

Plywood Company Installs Big 'Sandwich' Press

A new $70,000 plywood hot press, believed to be the largest in America, is being installed at Plylock plant of M and M Woodworking Company in St. Johns, Oregon.

Weighing 275,000 pounds, which doesn't include loading and unloading devices, the mammoth press stands nearly two stories high. The lower workings extend into a specially-built cellar.

Its builder is Williams-White Company of Moline, Ill. The $70,000 cost does not include shipping and installing, said President Thomas Malarkey.

The new press will make the plywood sandwiches at a rate up to 200,000 square feet a day in panels as large as 5x12 feet, bonding 16 panels at once.

The press has several features incorporated for the first time in a hot-plate press. Among these is a two-pressure system which enables the operator to automatically lower the press pressure after the curing cycle has begun. With this control, the amount of compression of the veneer in the finished panel is reduced. When the press is used to produce 5x12 foot panels, 10 rams are in operation, giving the necessary tonnage. The smaller panels, such as 4x8 foot, require only 6 rams for the required tonnage. Another hydraulic feature controls the opening speed of the press to a uniform rate for ease in operation. The hydraulic pumping system utilizes Oilgear, a variable delivery pump and valves.

The sale of the press was handled by the George E. Zweifel & Company of Portland who are the Pacific Northwest representatives of Williams-White & Company, and they also supplied supervision of the installation.

It was engineered for M & M, as was its loader bought from American Manufacturing Company, Tacoma.

Buys Mack Truck

Canadian Forest Products, Vancouver, has purchased four LMSWL Mack trucks with 300 h.p. Cummins diesel engines for its operations in the Harrison Lake country and in the Nimpkish valley on Vancouver Island.

Yarding logs 1000 ft. with Logger's Dream on precipitous up-hill haul at Richard Rossignol's Lolo, Mont. woods operations.

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Boom Boat Specialists

The building of boom pond boats for the lumber, plywood and pulp industry is becoming quite a business. Progressive lumber manufacturers have found that one 150 HP boat maneuvering logs around is very efficient. L. S. Baier & Associates build this type of boat in their Milwaukie, Oregon, plant.

L. S. Baier, the owner, has been associated with steel vessel construction for many years, building ships up to 10,000 ton capacity. Part of his experience was designing various types of work boats and boats used in fast water operation on the Willamette and Columbia Rivers for the U. S. Army Engineers. Since World War II, Mr. Baier formed his own company and now builds steel pond boats, dozer boats and tow boats for the lumber industry as well as converting surplus ships for Coastwise packaged lumber carriers.

While L. S. Baier & Associates have not restricted their operations to building boats entirely for the lumber industry, having built various types of fishing craft and barges, etc. they felt that the lumber industry offered a substantial market for properly designed rugged work boats. Acting on suggestions and recommendations of practical lumbermen they designed a line of stock boats which could be built in the multiple system, thereby reducing costs and providing rapid delivery.

All boats designed for the lumber industry have been built with special reinforced features where impact with logs would ordinarily create damage, and hulls that have been in service now for a number of years are in as good shape as the day they were put in use. In their Portland office, L. S. Baier & Associates carry on general engineering activities in addition to their marine work and have performed numerous jobs for the industry here in the Northwest. A new and modern shop has recently been completed at Milwaukie, Oregon, where work boats are being constructed.

One of the L. S. Baier boats.

Shown herewith is the L. S. Baier plant in Milwaukie, Oregon, showing 3 dozer boats on the production line and 1 24 ft. pond boat in the form.

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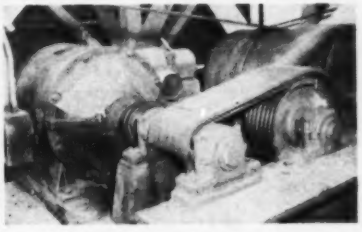

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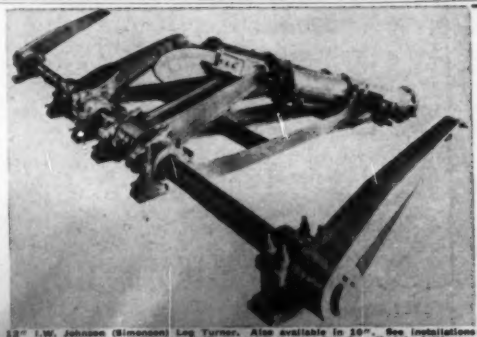

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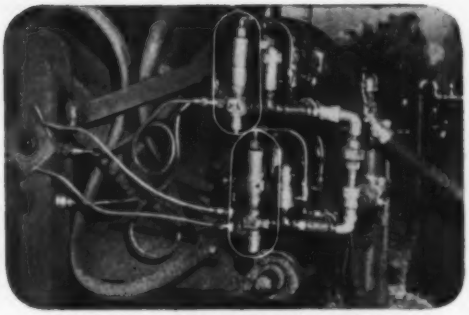

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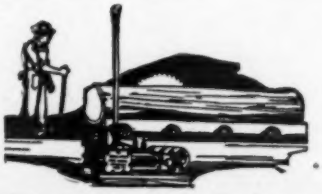

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New branch plant of Howard-Cooper Corporation, located at 685 N.E. Olive St., Newport, Oregon, and Wayne Robertson, branch manager.

Howard-Cooper Corp. Opens New Branch

Howard-Cooper Corporation, Northwest distributor of heavy machinery for logging and construction, announce the opening of their seventh branch plant at 685 N.E. Olive St., Newport, Oregon. The new plant has been opened to give better service in the Newport region to the many users of International Harvester, Adams, Berger, Unit and other heavy equipment lines handled by Howard-Cooper.

The new plant is of reinforced concrete and has complete shop facilities, parts supply and a display room for new equipment.

Mr. Wayne Robertson has taken over managership of the new plant, with Joe Taucher as office manager and Fred Warren as shop foreman.

No formal open house is planned, but the public is invited to stop in for general inspection of the new plant at any time.

Barnett Co. Named Gearmatic Distributor

Gearmatic Co., Ltd., 636 West 6th Avenue, Vancouver, B. C., enterprising manufacturers of the popular Gearmatic air actuated quick-change transmissions which have had a wide acceptance in the logging industry throughout the Pacific Northwest, announces a change in dealer representation in the California territory.

By mutual agreement the firm of Riley Logging Supply Co., formerly Riley & Williams, Inc., of Eureka, Calif., has relinquished the distributorship because of the lack of necessary facilities, and the new representatives for Gearmatic are Fred F. Barnett Co., 1036 Monadnock Building, San Francisco, operating through its branch in Eureka, managed by Sterling Jensen.

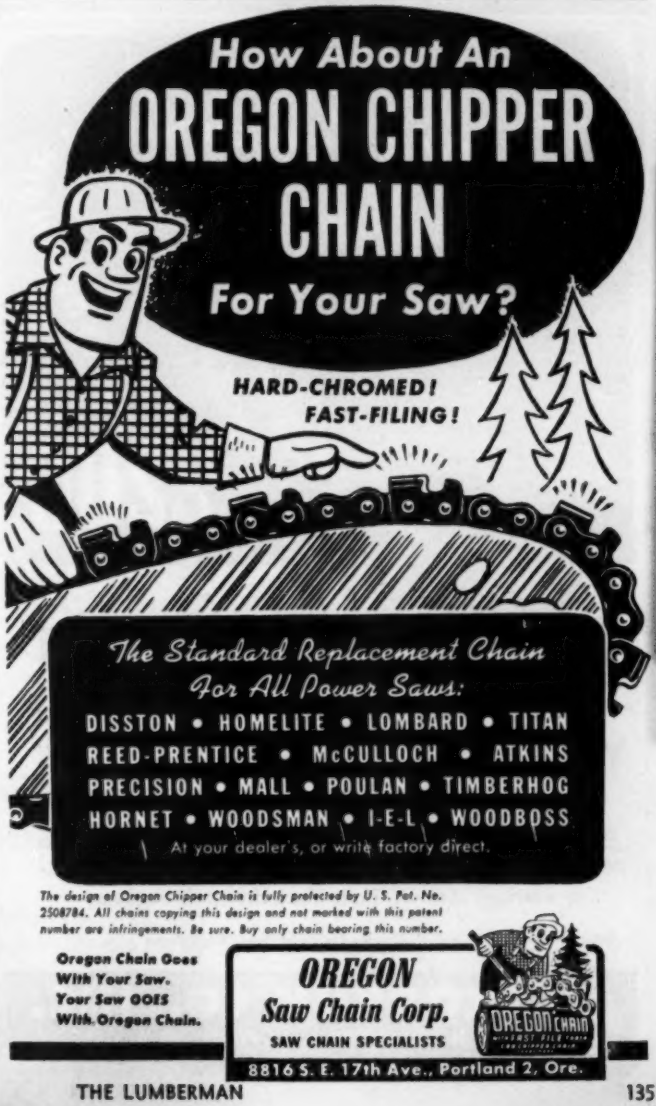
The Barnett office in Eureka will handle all inquiries and will be in a position to serve the industry throughout the tributary region in Northern California.

In Oregon, the Gearmatic distributors continue to be Western Equipment Co., with offices in Portland, Eugene, and Roseburg.

In Washington, Gearmatic Co. is represented by Northwest Motor Parts & Manufacturing Co., Seattle.

William Bonar is director, and sales and service manager of Gearmatic Co., Ltd.

WM. BONAR, Director Gearmatic Co., Ltd.


How About An
OREGON CHIPPER CHAIN
For Your Saw?
HARD-CHROMED!
FAST-FILING!
The Standard Replacement Chain
For All Power Saws:
DISSTON • HOMELITE • LOMBARD • TITAN
REED-PRENTICE • McCULLOCH • ATKINS
PRECISION • MALL • POULAN • TIMBERHOG
HORNET • WOODSMAN • I-E-L • WOODBOSS
At your dealer's, or write factory direct.
The design of Oregon Chipper Chain is fully protected by U. S. Pat. No. 2508784. All chains copying this design and not marked with this patent number are infringements. Be sure. Buy only chain bearing this number.
Oregon Chain Goes With Your Saw.
Your Saw GOES With Oregon Chain.
OREGON
Saw Chain Corp.
SAW CHAIN SPECIALISTS
8816 S. E. 17th Ave., Portland 2, Ore.
OREGON CHAIN

A 25-ton Lorain Moto-Log Loader is used by J. W. Taylor Logging Co., Redding, Calif. On a 30 ft. wide landing, Taylor has loaded up to 175,000 board feet of logs in 9 hours.

Here it is...the High Lead block you and everyone else has been waiting for, Skookum's new 2200. Only *365 pounds*... Tough... Rugged... Fast.

Equipped with safety line eyelet . . . Timken tapered Roller Bearings...Skookum patented bearing adjustment and grease seal . . . Annealed cast steel sides . . . manganese steel (non-line wearing) sheaves. Built like a champ throughout.

We Build Blocks to Your Specifications

SKOOKUM CO., INC.

8504 N. CRAWFORD • PORTLAND 3, OREGON

To Build Swedish Log Barker

Incorporation papers have been taken out for Soderhamns Machinery Mfg. Co., Inc., Talladega, Ala., with capital authorization of $75,000 for the purpose of manufacturing the pneumatic log debarker invented by Erland Anderson, and up to the present produced in Sweden by Soderhamns Verkstader, AB, Soderhamn, Sweden. In barking, the logs are fed by rollers through a rotating chamber containing curling tools so designed as to follow the contours of the log, and forced against the log by air pressure.

Gus Jacobson, who will direct the Talladega plant, made arrangements for the building, and returned to Sweden to get his family. He was due to arrive in Talladega to start installation of machinery shortly after October 1.

New Quarters

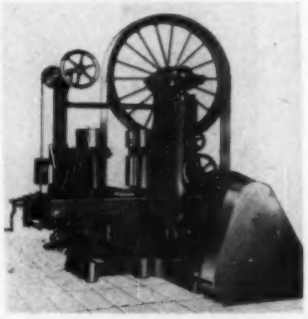
F. N. Johnston & Co. have moved their office from the American Bank building to 236 Humble Oil building, 909 South Jefferson Davis Parkway, New Orleans 15, La. The firm represents Dodge Mfg. Co., Philadelphia Gear Works, Reliance Electric & Eng. Co., Logan Company, Service Caster & Truck Corp., and Union Chain & Mfg. Co.

Improved 54" Vertical Band Resaw

Several improvements have recently been made in their 54" vertical resaw according to the manufacturer, McDonough Manufacturing Co., Eau Claire, Wis.

These improvements include a new type transmission for the feed rolls. This new transmission is a positive gear drive with five speeds ranging from 40 to 220 lineal feet per minute through the feed rollers. All of the gears, which are hardened cut steel, remain in mesh and the speed change is made by simple lever control. Anti-friction needle bearings with oil seals are provided throughout. This transmission is interchangeable with previous drives used on McDonough resaws.

Other improvements include Timken bearings on the lower wheel shaft and hardened cut steel mitre drive gears on the feed rollers. These are also equipped with Timken bearings.



The McDonough Manufacturing Company's new improved 54" vertical band resaw.

SIMONDS SAW AND STEEL CO.

VENEER KNIVES
for lathes and slicers
SAWS
CHIPPER KNIVES
HOG KNIVES
FILES BLADES

CHAIN
Roller Chain
Steel Chain
Malleable Chain
PYRENE
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Long life industrial rubber goods for plywood and lumber mills

- CONVEYOR BELTING
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- FIRE HOSE
- PACKINGS
- RUBBER LININGS

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MUNNELL & SHERRILL of CALIFORNIA · 1563 G Street · Arcata, California

FOR COMPLETE SATISFACTION
WITH YOUR REFUSE PROBLEMS
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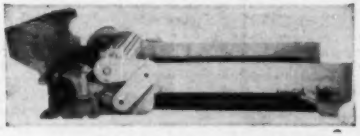
PENINSULA PLYWOOD HOG
Used in Majority of Western Plywood Plants
BUILT FOR WESTERN RUGGED DUTY

ask about Peninsula glue spreader used by progressive operators . . .

PENINSULA IRON WORKS
BUILDERS OF PLYWOOD MACHINERY
6618 N. Alta Ave. Portland 3, Ore. UNiversity 4461



Peninsula chain table feed plywood hog. Also available in the belt type.

Rack & Pinion Type Set Works

Prescott-Seattle
ELECTRIC SET WORKS

For Fast, Accurate Setting
Will set to 1/32" increments

BUILT-IN DRIVE MOTOR

CLUTCH AND GEARS OPERATE IN OIL TIGHT CASE

Built for either rack and pinion or screw block type carriages

Prescott Iron Works, Inc.
1 W. Lander St. Phone SEneca 0250 Seattle, Wash.

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AND
Woodworking Plants
PROVIDE QUALITY LUMBER AT PROFIT

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R. E. (Gene) Hooker and H. J. (Homer) Ellis
P. O. Box 781 Klamath Falls, Ore.
Phone 22588

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Also Wholesale Distributors of
SAWMILL and INDUSTRIAL SUPPLIES and EQUIPMENT

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There's a model to fit your particular trimming requirements

43-A Heavy Duty V-Belt;

43-B Heavy Duty Motorized;

43-C Medium Duty V-Belt.

•

AUTOMATIC Random Length Smooth End Trimmers.

AUTOMATIC Random Length Smooth End Trimmers with "Individual Saw Control"

Designed to trim for maximum amount of profit lumber, minimum amount of refuse.

Geared to cope with present day high planer speeds. No other trimmer has been so successful in maintaining such top performance. Tailored to fit your requirements. Whether your mill is large or small, Irvington can engineer a trimmer to give maximum coordination with balance of mill equipment.

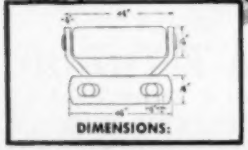
Irvington has concentrated on cut-off saws and trimmers since 1907 . . . specialists by experience, by reputation.

Write Today for illustrated folders . . . and a list of over 50 mills who, in 1950 alone, selected Irvington Trimmers.

Irvington MACHINE WORKS
1909 N. E. 7th AVE. PORTLAND 12, OREGON

Get tough! **with HIGH LABOR COSTS!**

PORTALLOY ROLLER TOP CHAINS
are your answer to high green chain labor cost.



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MANGANESE BEARING
LONGER LIFE
EASILY WELDED TO
FITS STANDARD SPROCKETS

Write or call for catalog and price sheet. . . . .

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PORTLAND CHAIN MANUFACTURING CO.

IN THE HEART OF THE LOGGING INDUSTRY

IMPORTANT ANNOUNCEMENT!!!

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Sales and Service in
Eugene, Oregon

Now in our new expanded plant at

4190 Hiway 99 South
(One block West of Hiway Y in Glenwood Section)

To Better Serve Our Many Friends and Users of **McCulloch** Power Saws

Phone, Write or Wire, or Better Yet Come in for a Demonstration

FOSTER POWER SAW CO.

Factory Distributor in Lane, Linn, Lincoln and Benton counties, Oregon. Also dealers for Log Master Pond Saws

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Talk over your POWER Problem with us.

This Ford "337" Power Unit is just one of the five great new engines in the Ford Power Line at Francis. We can help you solve your Power Problem.

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509 S. E. HAWTHORNE • PORTLAND 14, OREGON

HARRY W. HUGHES

Brainard Steel Co. Names West Coast Manager

Brainard Steel Company has appointed a new West Coast Manager, Harry W. Hughes. He has opened a new office at 717 Market Street, San Francisco, where he will be in charge of sales for The Brainard Steel Strapping System, Electric Welded Mechanical Tubing, and Building Products, including the Tel-O-Posts, Steel Strong Posts, and Areawalls.

New warehouse facilities have been established at 355 Barneveld Avenue, San Francisco 24, California, to offer better service for customers for Brainard strapping and strapping tools. The new office will offer coordinated sales service for California, Oregon, Washington, Arizona, and Nevada.

Mr. Hughes joined Brainard early this year. He previously held sales posts with Sharonsteel Products Co., Dearborn, Michigan, and with Detroit Tube & Steel Co., other Sharon Steel Corporation subsidiaries.

During World War II he served as engineering officer in the Navy with the rank of lieutenant. From 1937 to 1943 he was a salesman for Pittsburgh Steel Company.

He is a graduate of Purdue University with the class of 1937. He was born in Sharon, Pa., and attended grade and high school in Youngstown, Ohio. He will reside at 609 Gonzales Ave., San Francisco.

Adds Second Planer

Brown's Tie & Lumber Co., McCall, Ida., installed a new 414 S. A. Woods all-electric 24 in. matcher last summer. Becoming the plant's number one planer, it was placed where a 404 Woods formerly operated. This 404 unit then became the number two planer, replacing a slower machine.

A Moore tilting hoist and transfer chains were installed in conjunction with the new matcher and Moore chain transfer replaced a track system at number two planer.

This planing mill modernization included installing an Archer blower system using 125 h.p. General Electric motor to power the fan.

LOST TIME... NONE!

OVERHAUL EXPENSE... NONE!

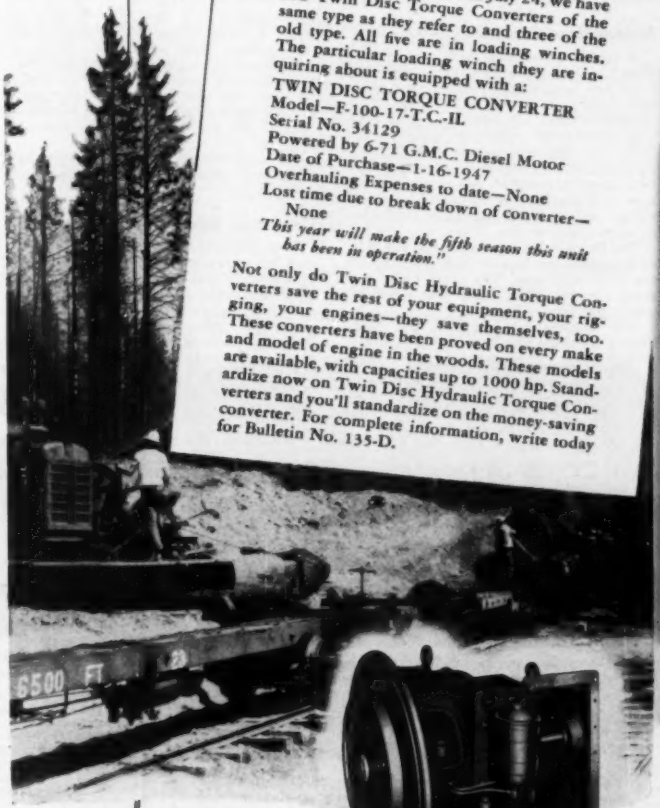
Recently, we wrote Fred Ellis, President of the West Side Lumber Company, Tuolumne, California, to ask a question about torque converters. He turned it over to Al Bonales, his Woods Mastermechanic. Here is the Mastermechanic's reply, just as he wrote it:

"In regard to your letter of July 24, we have two Twin Disc Torque Converters of the same type as they refer to and three of the old type. All five are in loading winches. The particular loading winch they are inquiring about is equipped with a:

TWIN DISC TORQUE CONVERTER
Model—F-100-17-T.C.-IL
Serial No. 34129
Powered by 6-71 G.M.C. Diesel Motor
Date of Purchase—1-16-1947
Overhauling Expenses to date—None
Lost time due to break down of converter—None

This year will make the fifth season this unit has been in operation."

Not only do Twin Disc Hydraulic Torque Converters save the rest of your equipment, your rigging, your engines—they save themselves, too. These converters have been proved on every make and model of engine in the woods. These models are available, with capacities up to 1000 hp. Standardize now on Twin Disc Hydraulic Torque Converters and you'll standardize on the money-saving converter. For complete information, write today for Bulletin No. 135-D.



TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES

Five Twin Disc Hydraulic Torque Converters are employed on loading winches operated by West Side Lumber Company, Tuolumne, California.

TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC Division, Rockford, Illinois

BRANCHES: CLEVELAND • DALLAS • DETROIT • LOS ANGELES • NEWARK • NEW ORLEANS • SEATTLE • TULSA

This is a typical illustration of a Tulsa winch used for power on a cherry picker truck. Note the truck is carrying the steel truss thru the Tulsa winch, and the winch on the tractor is pulling the truck. Tulsa winches are available in 28 models in capacities from 6 to 80 thousand pounds. Western Equipment Company, Portland, Eugene and Roseburg, are Oregon dealers.

Modernizes Sawmill

A progressive pine mill, the C. L. Pine Co., at Prairie City, Ore., of which Glen Lee is manager, recently modernized their mill by the installation of an all steel Peters' log deck equipped with stop and loader and hook type turner. Both the stop and turner are entirely hydraulically operated. The turner has two push arms and one center hook arm and the deck is equipped with lift skids; each one having individual hydraulic cylinder for lifting.

The large hook type turner is capable of handling the largest logs handled in the mill with ease. The push arms are used for reloading onto the carriage when the flipper is used.

The flippers are part of the new Peters' carriage also installed. This carriage is three block, 54" opening rack and pinion type machine. Carriage equipment is centered around the Peters' hydraulic precision setworks. Combination log and board dogs are powered from the same hydraulic pumping unit as also are the flipper and hammer dog.

Carriage frame is all steel with 12" alloy steel wheels, Timken bearings and solid axles.

Carriage Equipment

The Dalles Lumber Company, Oregon, has recently purchased from Salem Equipment and Supply Company a #168 automatic carriage and a 168 feed works, a Schram compressor, and an automatic, remote controlled, air operated log carriage.

Cropf Lumber Company, of Oak Ridge, Oregon, has just installed a log deck and a standard automatic, remote controlled carriage. This purchase was also made from Salem Equipment and Supply Company.

Louis B. Hanchett, Killed

Louis B. Hanchett, 73, associated with the Hanchett Manufacturing Company of Big Rapids, Michigan for over 50 years, was killed in an automobile accident near Williamston, Michigan on August 28.

Mr. Hanchett served as secretary of the company prior to his recent retirement. Since that time, he has been active as a member of the Board of Directors.

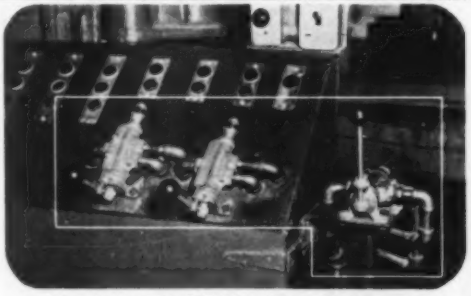
Salem Table Edger

A recent installation at the DeGuire Lumber Company, Waldport, Oregon, is a Salem 6"x42" table edger, manufactured by the Salem Equipment and Supply Company, of Salem, Oregon.

Tractor Inventor Dies

C. L. Best, pioneer inventor and tractor builder, died September 22, 1951, at San Francisco, Calif., at the age of 73. One of the founders of Caterpillar Tractor Co., he was chairman of the board and member of the executive committee at the time of his death.

Coos Head Timber Co., Empire, Ore., added a second shift of 60 men at its McKenna mill in Eastside during mid October. **F. Willis Smith**, president and manager, says 12 more men will subsequently be added to this shift.



Three lever-operated Valvair valves, mounted on control panel of Wickes gang mill, Northern Redwood Co., control movements of chants to gang saw.

Lumber Companies Declare that "VALVAIR" Means Dependability

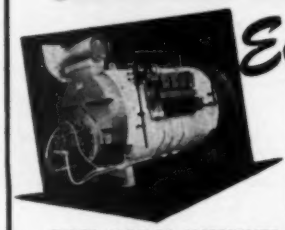
Valvair users report many years of service without maintenance. Our unique "OU" packer (the only wearing part) combines the best features of O-ring and self-sealing U-cup designs. No metal seats to deteriorate. If replacement of the packer does become necessary, the piping is not disturbed; a few minutes are enough.

Bearings & Transmission Products, Inc.; Eureka, Calif.
Chain Gear, Inc., 822 First Ave. S., Seattle 4
Galbraith & Sulley, Ltd., Vancouver, B. C.
Power Transmission Products, Portland 9

VALVAIR CORPORATION . 454 Morgan Avenue, Akron 11, Ohio
Affiliate: The Sinclair-Collins Valve Company

Rely upon Valvair

GABRIEL BOILERS FOR Economy



- IN USE
- IN DESIGN
- IN SERVICE
- IN INSTALLATION

A.S.M.E. Code Constructed National Board Registered Modern Welded, X-Rayed and Stress Relieved Construction

STEEL BOILER INSTITUTE CAPACITY RATED
(Your Assurance of Reserve Power)

BOILER SIZES MANUFACTURED:
3 to 300 horsepower — 15 to 200 lbs. working pressure. Oil, coal stoker, gas, sawdust and hog fuel firing with induced or natural draft.

TYPES OF BOILERS MANUFACTURED:
Scotch Marine • Two-pass Firebox • Gas-fired Vertical • Horizontal Return Tube • Vertical Tubeless • Vertical Tube • Pressure Storage Tanks • Water Heating Equipment

FACTORY ASSEMBLED PACKAGE UNITS
All boilers are steam generators with basic capacities predicated on heating surface.

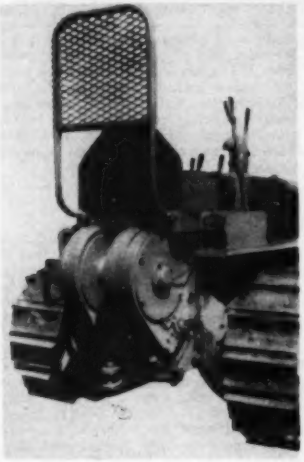
Write for Information and Nearest Dealer

GABRIEL
FABRICATION & ERECTION CO.
1428 N.W. 14th AVENUE • PORTLAND 9, ORE.
BUILDERS OF FINE BOILERS

Hyster Announces New HySpeed Winch

Designed to supply increasing demand for a lightweight, free-spooling tractor winch with fast line speeds and quick positive brake action a completely new D4 HySpeed Winch has been developed by the Hyster Company.

The new HySpeed Winch has many applications as a production tool, as well as for service, maintenance and general utility. A few of the jobs it will perform are lifting, pulling, crane work, light pile driving, ground skidding logs, bundling pulp logs, skidding bundled pulpwood and for "feeder cat" work in logging.



An important new application possible with the HySpeed Winch is the new method of forming and transporting bundles of pulpwood logs developed by Hyster. Details of bundling pulpwood are available free in a new Hyster brochure.

(Hyster may be billed for cost of cut: Ref. No. 527.)

An attractive 50 page catalog illustrating the products supplied by Portland Chain Mfg. Company of Portland, as well as their affiliate Pacific Chain & Mfg. Co., is being distributed to those interested. Illustrations of round and flat chain and chain attachments are shown. Complete statistics are also included. Copies of the catalog may be obtained by writing the company at 40000 N.W. Yeon St., Portland, Oregon.

Opens New Store

Lane Belt & Equipment Co. of Eugene, through the general manager, A. H. Peterson, announced the opening of a new sales and service store in Eureka, Calif., at 109 Fifth St. Joe Shea, an experienced belting and transmission man, is resident manager. This store will handle the same lines as the Eugene store, Allis-Chalmers electric motors and v-belt drives, Thermoid conveyor belting and hose, Rockwood belts, paper pulleys, etc. They will also stock chain, idler drums, bearings and sprockets.

DO YOU KNOW
Which Was the World's Worst
FOREST FIRE? (1500 Lives Lost. 1,280,000 Acres Burned in Six Counties. Many Injured.)
(SEE ANSWER BELOW)
INDIAN
The INDIAN FIRE PUMP stops such catastrophes as this. It puts out inside and exterior fires before they get out of control. No wonder it is the first choice of fire departments, foresters, lumbermen and others who know of the tragedies fires cause.
ANSWER: The world's worst forest fire was the tragic Peshtigo fire in Wisconsin in the fall of 1871.
Civil Defense needs Indian Fire Pumps to protect communities from fire bombs. Write us now, be prepared.
INDIAN
FIRE PUMPS
if used promptly could stop and avert such disasters at the start. Whenever fire strikes, quick use of INDIAN FIRE PUMPS can confine it and extinguish it. Building, roof, field, grass and spot fires are "killed" in a hurry by these fire fighters.
Smith INDIAN Back Firing Drip Torch
Widely used for slash disposal, burning right of way, etc. 1 gal. tank. Brass feed pipe. Strong construction. Designed for forestry back firing work.
Smith INDIAN Drinking Water & Supply Tank
For carrying water to fire fighting crews and refilling Indian Fire Pumps. 5 gal. capacity. Push button faucet. Carries by handle or slung on back.
Fire fighting crew smashes brush fire with INDIAN FIRE PUMPS
All help possible is needed to keep fires from hampering our defense efforts and destroying natural resources.
D. B. SMITH & CO.
416 MAIN ST., UTICA 2, N. Y.
PACIFIC COAST BRANCHES:
Hercules Equipment & Rubber Company, Inc. 435 Brannan Street San Francisco 7, California
Roy G. Davis Company 617 East Third Street Los Angeles, California
Fred E. Barnett Company 7005 S. E. 8th Ave. Portland, Oregon
Fred E. Barnett Company 600 Spring Street Klamath Falls, Oregon
Titan Chain Saws, Inc. 2700 Fourth Avenue South Seattle, Washington
L. N. Curtis & Sons 438 West Third Street South Salt Lake City, Utah
CANADIAN AGENTS:
Flack Bros. Limited 110 Alexander Street Vancouver, B. C., Canada
C. E. Hickey & Sons, Limited Hamilton, Canada

FOR SALE
WINCHES
GASOLINE DRIVEN
Manufacturer: M. L. Bayard & Co., Inc.
Type: IV
Center Drum Duty: 17,750# pull @ 42 fpm
Drum Stowage: 900 ft. ¾" wire rope—6 layers
Side Drum Duty: 2,250# pull @ 45 fpm
(Each) Side Drum Towage: 60 ft. ½" wire rope—4 layers
Engine Data: Chrysler Model T 118; Capacity, 47 BHP 1800 RPM
WRITE — PHONE — WIRE NOW!
National Metal & Steel Corp.
DEPT. WT, TERMINAL ISLAND
(LOS ANGELES HARBOR), CALIF.
TELEPHONE—LOS ANGELES: NEVADA 6-2517

HERB NEWELL has joined the sales force of Atkins & Williams Tractor Co., Eureka, Calif., dealers for Allis-Chalmers Tractor Div.; General Motors industrial and marine engines; and Chrysler industrial and marine engines. Newell is well grounded in the principles and practices of logging in the Redwood region and also has an excellent background of mechanical experience. He was for ten years with the Pacific Lumber Co. More recently he sold Allis-Chalmers equipment and Chrysler engines.

JAMES R. ELSINGER who has been Atlanta, Ga., representative for the Signode Steel Strapping Co. of Chicago, has been transferred to their Baltimore District. He will reside at Richmond, servicing part of Virginia and all of North Carolina. He joined Signode in 1949. His engineering experience plus association with one of the country's leading developers of steel strapping puts him in position to advise shippers on methods of package protection and car loading.

PHIL SHEEHAN new parts manager of Wood Tractor Co., Portland, Ore. has been with the Wood organization for five years. The parts department stocks more than 10,000 different parts for Allis-Chalmers tractors; Baker dozers; Gar Wood scrapers, dozers and power control units; Carco hoists, arches and dozers; Tractomotive equipment; Isaacson dozers; B & B wire rope; Shookum blocks and rigging; Esco buckets and rigging. Sheehan reports the addition to the parts department staff of Gerald E. Reznek.

H. E. SCHRADER has been promoted to the executive staff of Western Gear Works. In his new duties, Schrader will assist B. A. Bannan, vice-president, in product development and research for Western Gear Works plants in Lynwood and Belmont, Calif., and Seattle; Pacific Gear & Tool Works, San Francisco; and Southwestern Gear Works, Houston, Texas. Schrader has been with the company 23 years and was formerly in charge of design and application engineering for the Lynwood plant, where he will have his office.

Personals

John F. Krafsic for 41 years with the Dupont company and widely known among western contractors and loggers has retired. He was the guest of honor recently of district manager S. M. Stroehecker, Jr. at a dinner given at the Mallory Hotel Portland, Ore.

Robert F. Black, president of The White Motor Company, announced the appointment of **Roderick H. Clarke** as sales manager of the Sterling Division of the company. Mr. Clarke will make his headquarters at the Sterling Division plant in Milwaukee.

Andy Corley, Jr., manager of Corley Manufacturing Co., Chattanooga, Tenn., recently visited in the Pacific Northwest. Corley's Pacific Coast headquarters are located in Portland, Ore.

L. O. McLean, sales manager for General Excavator Co., of Marion, Ohio, accompanied by **Frank L. Johnson**, Pacific Coast manager for General Excavator Co., as well as for their affiliated company, Osgood Co., were recent visitors at their Portland distributor, Western Equipment Co. Recent deliveries of Osgood and General truck loading cranes include Buck Mt. Logging Co., Wheeler, Ore.; Medford Corporation, Medford, Ore., a #825 log loader, and Broughton Lumber Co. an Osgood #825 log loader with the new high cab type.

Develops Hardboard Plant Equipment

The brand new field of hardboard manufacture, has been the subject of more than five years of intense technical research and engineering studies by American Mfg. Co. of Tacoma, Wash.

Four distinct types of processes by four widely scattered manufacturers have found the American self-elevating charger and self declining receiver exactly suited to their production needs.

U. S. Plywood's new "Novoply" plant will have two production lines of American equipment. They handle a ground wood chip core stock, having both faces textured with fine layers of sliced chip material.

A true wet process plant at Dee, Ore., is being installed by Blaw-Knox Corp. for Oregon Lumber Co., with American equipment.

At American's plant in Tacoma, full equipment for two other distinctly different processes is in production. At the Cascades Plywood Inc., Lebanon, Ore., where a dry fibrous type board is made, and for the Curtis Companies, at Clinton, Iowa, where a dry granular material is handled.

Named Valve Dealer

Announcement is made by General Rubber & Supply Co., Portland, Ore., that they are now dealers for Kennedy bronze globe and angle valves, with renewable composition discs. They come in ¼" to 3" sizes, and recommended for services up to 150# steam or 300# for cold water, oil, air or gas. Stocks are carried in Portland.

JUST OFF THE PRESS

THE LUMBERMAN'S 1952 HANDBOOK and DIRECTORY

OF THE

Western Forest Industries

HERE'S A SAMPLE OF WHAT YOU'LL FIND

COMPANIES: Name of companies, operating addresses, head offices, mailing addresses, regional products.
PERSONNEL: Owners, presidents, managers, sales managers, purchasing agents, logging contractors, etc.
PRODUCTS: Species produced, production capacities, equipment used, dry kiln and other operating facilities.
SPECIAL SECTIONS: Sawmills, logging camps and log haulers, plywood and veneer plants, box factories, shingle mills, woodworking plants, treating plants, door manufacturers, re-manufacturing plants, lumber exporters, lumber wholesalers.
STATES: Utah, Oregon, Idaho, Montana, Colorado, Arizona, South Dakota, Wyoming, California, Alaska, Washington, New Mexico, British Columbia, Mexico, Phillipines, Southern States (Plywood Section).

CATCH . . . the DATE
NOTE . . . the PRICE

In order to protect you from the increase in the selling price of the 1952 edition of The LUMBERMAN'S Handbook & Directory of the Western Forest Industries, we are offering you a pre-publication special of $10 per copy—which will be in effect only until publication date of the 1952 edition.

After publication of the 1952 edition, the selling price will be $12 per copy. In order to assure you the $10 rate, orders should be postmarked not later than November 20th, 1951. You may order as many copies as desired at the $10 pre-publication rate.

*1951 Edition of The LUMBERMAN's Handbook & Directory of the SOUTHERN Forest Industries—Released: Sept. 15, 1951—$5.00 per copy. (Oklahoma, Arkansas, Texas, Louisiana, Alabama, Florida, Georgia, So. Carolina, No. Carolina, Virginia, Tennessee, Kentucky)

PRE-PUBLICATION: Order Form—$10 per copy; postmarked on or before Nov. 20, 1951

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..... Number of Copies ..... Send Statement ..... Check Enclosed

Name of Company..... Zone..... State.....

Street .....

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Peterbilt deliveries

Feather River Pine Mills, Feather Falls, Calif., has taken delivery of three additional Peterbilt logging trucks, powered with 300 hp Hall-Scott butane burning engines.

Three additional Peterbilt logging trucks, powered with 275 hp Cummins diesel engines have been delivered to Fruit Growers Supply Co., Westwood, Calif.

Roy Stoddard, Fort Bragg, Calif., logger, has taken delivery of five new Peterbilt logging trucks powered with 300 hp Cummins diesel engines, and pulling Reliance trailers.

Allen Howard, Ukiah, has added two new Peterbilts, powered with 200 hp Cummins diesel engine to his fleet of logging trucks.

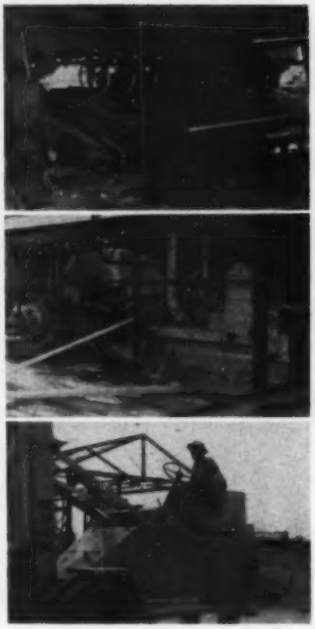
C. R. Woodruff, Willits lumber hauler, has taken delivery of a fleet of four Peterbilts—three were powered with 300 hp Cummins diesel engines, and the fourth with a 200 hp Cummins.

Four Peterbilts—two with Cummins 300 hp engines, and two with 275 hp Cummins diesel engines have been delivered to E. A. Minatta, Cotati, lumber hauler.

H. R. Stokes, log hauler of Cloverdale, has added two new Peterbilt trucks powered with Cummins 300 hp engines to his fleet. He now has eight Peterbilts.

Recent additions to the fleet of Collier Transportation Co., Meyers Flat, bring the number of Peterbilts to 16 units—six have 275 hp Cummins engines—five have 200 hp Cummins engines, and five have 150 hp Cummins engines.

Al Blasie, Windsor, lumber hauler got delivery of five new Peterbilts this year. Four are powered with 200 hp Cummins diesel engines, and one with a 165 hp Cummins diesel.



Views at the new planing mill of the Garbudd Lumber Co., Fields Landing, Calif., of which Frank Crawford and Bud Bristow, are owners. Plant is expected to have a daily capacity of 70,000 feet. Top: Irvington random length trim saw. Center: Yates-American A-62 planer. Bottom: Ivan Brunar, planing mill foreman, lends a hand on the new Ross fork lift truck.

To Handle Raybestos-Manhattan Packing

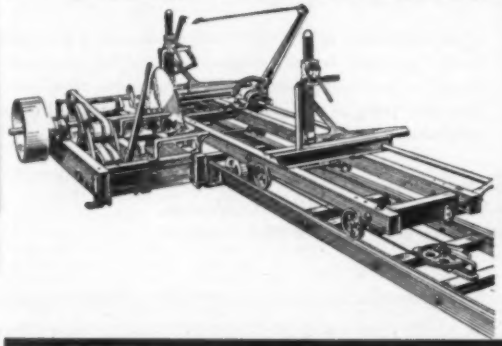
Washington Belting & Rubber Co. of Seattle and Tacoma, Wash., have added the Raybestos-Manhattan packing line to their list of accounts being sold to the lumbering industry.

New Equipment House

The Priest Logging and Equipment Co., of which Reid Priest owner of the Priest Logging Co. is president, on October 13 opened for business in a modern new building at Port Angeles, Wash. Constructed to fill the need of local loggers for truck parts and logging equipment, the new building will house the Priest Logging office as well as a new sales office for Mack trucks and truck repairs. In addition, the shop also will feature Cummins diesel sales and service, Edwards wire rope, Esco rigging, Young blocks and other necessary logging equipment.

The new business is located near the Peninsula Plywood Plant on Marine Drive. It will be possible to work on six trucks at a time in the huge shop. Mrs. Don Brittain is secretary; Milton Bushman, shop foreman; Erritt Crowther, parts and sales department and Kenneth Morgan, Cummins Diesel specialist.

another famous name joins Zidell's big family of SAWMILL MACHINERY!



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TURNER PONY SAWMILL

Cuts a 1000 ft. or more per hour . . . new ball and roller bearings mill operates economically on power from 10 to 75 H.P.

TURNER EDGER . . .

A precision built, improved gang edger, simply designed for longer, smoother, trouble-free peak load operation.

TURNER PLANER

A rugged, ball, bronze, and roller bearing, V-Belt drive Planer and Matcher of engineered simplicity . . . for practical millmen requiring low-cost operation.

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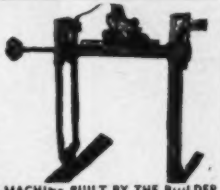
IMPROVE YOUR BAND SAW EFFICIENCY WITH MARTEN PRECISION BAND WHEEL GRINDER

Wheels Ground at any operating speed.
Bottom and Top Wheels are ground with one set up, only takes 5 minutes to change from Bottom wheel to Top wheel.
Machine fastens solid to Band Mill.
Grinding wheel can be moved in any degree of circle towards wheels and also 360° lateral.
We also do custom Grinding and Balancing at your Plant.



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Write for Further Information
M. W. MARTEN
P. O. BOX 997 KLAMATH FALLS, OREGON PHONE 7198

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MANUFACTURING & MACHINERY CO.
967 Edgewater St. Salem, Ore.
Phone 3-3123

Manufacturers Of
SEL-SET
REMOTE CONTROLLED SETWORKS

Installations In—
OREGON, CALIFORNIA, ARIZONA, NEVADA AND MONTANA SO FAR THIS YEAR, AND WE HAVE MANY MORE ON ORDER FOR THE NEXT TWO MONTHS.
FULL INFORMATION AND ILLUSTRATIONS ON REQUEST.

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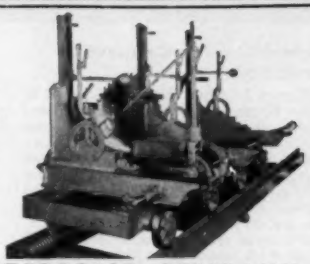

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When LOADING LUMBER in BOX CARS with the BOX CAR LUMBER LOADER

ELIMINATES NEED OF DOCKS
SAVES CARRIER TIME
PAYS FOR ITSELF QUICKLY
LOADERS LIKE IT

OVER 100 IN USE

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MATER Hook Dog all-steel construction heavy-duty, dependable, weighs 90 lbs.

With
MATER SAWMILL EQUIPMENT
custom engineered to fit your mill

automatic "Riderless" Carriages . . . one man carriages . . . manually operated carriages . . . Oilgear-equipped carriage drives

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MATER "Riderless" Carriage recently installed in Pigman Lumber Company, Arizona mill. The sawyer now does his own setting and dogging by means of the push buttons shown in the lower right hand section of the photo. A 35 HP Mater Oilgear-equipped "Fluid Power" Carriage Drive is the feedworks Russell Pigman is using with his new carriage.

John B. Scott (center), chief engineer of Bunning Bros. Pty. Ltd., Perth, West Australia, confers with Canadian Sumner personnel during his recent tour of U. S. and Canada. At left, P. N. Bland, chief engineer, and (right) Norman Terry, vice president, both of Canadian Sumner Iron Works, Ltd., Vancouver, B. C. Photo by THE LUMBERMAN taken at office of W. H. Rambo, industrial plant engineer, Portland, Ore.

Pigman Lumber Company Modernizes

Pigman Lumber Company, located 70 miles South of Flagstaff, Arizona, recently modernized its mill with the installation of a Mater "Riderless" carriage. The "Riderless" carriage, which is manufactured by the Mater Machine Works, Corvallis, Ore., has enabled Russell Pigman, owner of the mill, to run his carriage without a man on it. The sawyer does his own setting and dogging by means of push buttons. The carriage is a standard duty, 48" opening, 3 headblock carriage, with the usual Mater features.

After installing the Mater carriage, Mr. Pigman ordered a 35 HP Mater Oil-gear-equipped "Fluid Power" carriage drive to speed up his mill, replacing a Mater 20 HP carriage drive which he has been using the past two years.

Arizona Machinery Company, distributors of Mater Machine Works equipment in Arizona and New Mexico, handled the sale.

Modern Blower System Installed

A modern heavy duty blower system, designed and installed by American Sheet Metal Works, Inc., is now in use at the White Swan Lumber Co. near Yakima, Wash. The blower system serves a Yates-American A-62 matcher and resaw.

The shavings can be delivered to either the 50 foot Phelps burner or to the fuel storage bin which is approximately 470 feet from the planing mill. According to American Sheet Metal Works engineers, an automatic switchbox was installed in the discharge line which makes it possible to route shavings to either the burner or storage bin by remote control.

Brake Lining and Block Dealer

The Critzer Equipment Co., Spokane, Wash., distributors of Trailmobile trailers and trailer parts, have recently been appointed distributors of Goodyear brake lining and brake blocks for the Inland Empire territory, and offer a complete brake service to fleet accounts and truck operators.

A recent Goodyear contribution to better brakes for trucks and trailers is the Goodyear "Murder Run" Brake Blocks. With this new combination "MR" brake sets, it is said heat checking in brake drums is reduced to an absolute minimum and fading brakes and noise are eliminated.

Goodyear offers a complete line of Brake Lining and Brake Blocks for all types of service in the Inland Empire through the Critzer Equipment Co.

Irvington Distributor

Irvington Machine Works, of Portland, Oregon, has appointed the C. W. Marwedel Company, San Francisco distributors of planing and sawmill equipment and supplies, exclusive dealers in the northern California area for Irvington automatic random length trimmers, and Irvington #26 electric and air-operated overcutting cut-off saws.

Australian Visitor

John B. Scott, chief engineer of Bunning Bros. Pty. Ltd., Perth, West Australia, toured United States and Canada early this fall visiting lumber manufacturing and woodworking plants. The organization he represents has several mills and extensive holdings in Australia, spreading from New South Wales to Darwin.

Mr. Scott found lumber manufacturing in North America different than the industry as carried on in Australia. He was quite impressed with the cooperation extended to him by both lumber industry firms and machinery manufacturers.

Installs Newman Planer

Under the progressive management of Monrad Wigen, the Wynndel Box & Lumber Co. at Wynndel, B.C., has recently installed a Newman 500 planer, trim saw table and green chain in line with its policy of improving production. The mill depends on a circular head rig and Heaps, Waterous three-saw edger which cuts about 15,000 feet daily, about 60 percent spruce and the balance white pine, fir and larch. Most of the logs come from the Boundary Creek area and are supplied by contractors.

Blower system installed at new plant of White Swan Lumber Co., near Yakima, Wash.

RADIATORS

We manufacture and rebuild truck, tractor and industrial radiators. Built and reinforced to stand up under the toughest of logging conditions.

Special heavy duty cores carried in stock for practically all makes of trucks and tractors. Priced right. Prompt shipment.
For a radiator that continually breaks out, try a Super-Hex Special.
We guarantee all heavy built radiators for one year.

SUPER-HEX RADIATOR MFG. CO.

Engine Cooling Specialists for 25 years

1515 E. Fremont St. Stockton, Calif.

Cut costs, increase speed of your cleat operations!

California Type F Cleat Machine —standard of the Western pine industry—is designed for precision ripping of box cleats and other multiple-rip jobs involving short length stock. Power-driven feed rolls, mounted close together, insure positive travel through saws. Variable feed speed unit insures efficient stock handling. Separate motors drive saw arbor and feed rolls. *Write for details.*

CALIFORNIA SAW WORKS

721 Brannan Street — San Francisco 3, Calif.

SERVING THE LUMBER INDUSTRY SINCE 1886

Manufacturers of **California** Circular Saws, **California** Cut-Off Machines. *Distributors from stock of* Norton Abrasives, Big Chief Knives, Jones & Orth Cutter Heads. 2287

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Over **33%**

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Heavy-Duty Truck Batteries

Simply send us (freight prepaid) your complete old, useless battery. We'll build a COMPLETELY NEW battery in your case, using ALL NEW MATERIALS!

GUARANTEE

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Our completely new HEAVY-DUTY PLATES and SEPARATORS will insure you of NEW battery service at a saving of one-third!

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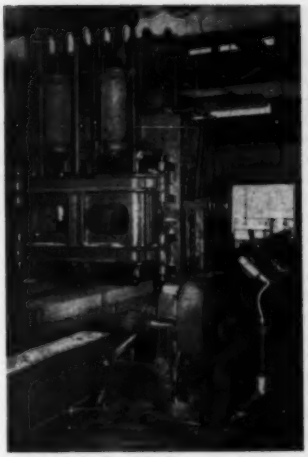
(Phone ATwater 6347)



Wickes Model No. 12, 32 saw gang mill, powered with a 150 hp GE motor, and with a U.S. variable speed motor on the feed rolls, which has increased production at the Northern Redwood Co., Korbel, Calif., 40%. Note Valvair hand operated valves at right.

Gang Increases Cut of Sawmill

The installation of a Wickes gang saw in the mill of the Northern Redwood Co., Korbel, Calif., has increased the production of the mill about 40%, according to Ray Barnardo, mechanical superintendent of the plant.

R. V. Nicholas is general manager of the concern. The Wickes gang saw is a Model No. 12 with 32 saws, and it cuts some 50M feet daily.

All one inch, five quarter, six quarter, and two inch lumber is manufactured by the Wickes gang saw, which is fitted with Valvair air valve hand controls. This leaves the two head rigs free to cut cants and timbers.

Feed rolls on the Wickes gang saw are powered with a U.S. variable speed electric motor, while the main drive is a 150 hp GE motor.

Westinghouse to Undertake $296,000,000 Expansion

The Westinghouse Electric Corporation will undertake a $296,000,000 expansion program extending beyond 1953, President Gwilym A. Price announced following a meeting of the Board of Directors September 26. Major projects already undertaken, he added, as part of the new expansion plan that will increase productive capacity by 50 per cent, are: A new plant in Raritan Township, N. J., which will soon begin manufacture of electronics equipment; a small motor plant at Union City, Ind., now more than half completed; electronic tube plants at Elmira and Bath, N. Y.; an aircraft-armament plant at Baltimore, Md.; a jet engine parts plant at Columbus, Ohio; an expanded plant for generator output at East Pittsburgh, Pa.; five new lamp plants; the purchase of a plastics plant at Hampton, S. C.; and provision for substantial increases in production of household appliances and television sets.

General

Yes, John Warren, with some 11 years of mechanical repair background, is a general, all-around repair man in the shop and out.

Just call Wood Tractor Co., Vermont 3135, Portland.

WANTED

YARD MANAGER FOR LARGE SO. CALIF. WHOLESALE AND RETAIL LUMBER YARD

Qualifications: Age, 38 to 48 . . . degree in business administration or equivalent in experience . . . 10 years diversified experience in building materials field, lumber handling, milling and yard operations . . . familiarity with waterfront labor problems . . . ability to select and supervise key divisional personnel . . . coordinate divisional activities for balanced operation . . . develop and operate within a budget . . . prepare management reports and develop operational policies. Must have excellent health and large physical stature. Personnel of this company has knowledge of this advertisement. Compensation commensurate with ability and experience. Send full details, salary requirement and photograph to Box 821.

ADDRESS BOX 821
THE LUMBERMAN
71 COLUMBIA ST. — SEATTLE, WASH.

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VALVES

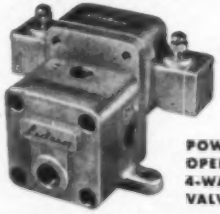
14 Models
for Positive,
Easy Actuation
of Air or
Hydraulic Cylinders

HAND OPERATED
4-WAY VALVE

A simple, economical valve, suitable for most requirements. Requires only light turning effort. Built for long life.

FOOT
OPERATED
4-WAY
VALVE

Leaves hands free for other work. Requires only light pedal pressure. Works like accelerator throttle. Particularly valuable for women workers.



POWER
OPERATED
4-WAY
VALVE

For remote control with or without electricity. Can be controlled by microswitch, cam, finger or toe operation.

Ledeen Valves embody the rotating disc construction, and are designed for controlling the flow of air, oil or water. They are made in 14 different models for 5 different cycles, in 6 sizes.

Write for Bulletin 510

Ledeen Mfg. Co.
1604 So. San Pedro
Los Angeles 15, Cal.

Plywood News

(Continued from Page 124)

end will start early next year and will be completed in late spring or early summer. The plant plans call for three lathes, two dryers and two hot presses. The firm has purchased 33 million feet of timber in Lincoln county, to be brought to Portland by raft or barge, and foreign hardwood sources are being sought.

A new plywood plant is to be built at Port Orford, Ore., by the Western States Plywood Cooperative, incorporated August 2, 1951. The company has a 20 acre site. They are planning to make basically exterior plywood and will use a hot press.

Officers of the company are C. A. Andrews, president, Dan Paulstick, vice-president in charge of construction, and Earnest J. Burrows, secretary-treasurer. It is a cooperative company.

It is expected that the green end of the plant will be in operation by late in April 1952 and the entire plant will be completed in November 1952.

Roy Berney, Portland, has been elected president of Interstate Plywood Corp., Bandon, Ore. He plans spending next few months at the plant directing operations. Previous to becoming president, Mr. Berney served as stockholder and member of board of directors of the firm. Other new officers are George Faessen, secretary-treasurer; Doyle Hastings, assistant secretary-treasurer; C. M. Hayes, C. H. McGraw and Elmon Hastings, directors.

The Miller Mill & Manufacturing Co., Joseph has completed the rebuilding of its sawmill. The rebuilt mill has a nine foot band mill.

Chipping at Plywood Plant

(Continued from Page 66)

remaining on the chains goes to the chipper. Large pieces reach the chipper after processing by the bolter, and pieces with bark go through the barker before reaching the chipper.

From the chipper, chips go by belt conveyor to midpoint of the new steel loading structure which is about 150 ft. from the chipper. A gate at belt discharge point directs chips to either of two chain conveyors. These chains, operating one at a time, take chips in a steady flow along top of the structure, the chips feeding through open slots to chutes and into the open-top rail cars.

There are six chutes per car. As a section of the car beneath a chute fills up, the chain carries chips on past this point to the unfilled sections.

Filer Goes to Alaska

Charlie Crabtree, head filer, box factory, Fruit Growers Supply Co., Westwood, Calif., has taken a filing job in Sitka, Alaska.

Poor Seed Crop in British Columbia

Hopes of a bumper crop of Douglas fir seed in British Columbia were abandoned when the provincial forest service discovered that most of the cones examined this year were seedless. The season's harvest is not expected to be more than 1,000 bushels. More than ten times that amount had been expected. Last winter's frost was regarded as a factor, and the extensive forest closure during the summer interfered with harvesting.

POWER —
DIESEL or GAS – 25 HP up
An engine for any job

GM DIESEL POWER
Evans Engine
AND EQUIPMENT CO. INC.
CHRYSLER INDUSTRIAL ENGINES
1230 Westlake North, Seattle 9, Wash. ALder 1440

Western Pine Prices

Following Delivered Prices, based on Past Sales, were reported to the WESTERN PINE ASSOCIATION by members during the period October 17 to 29, 1951 inclusive. Both direct and wholesale sales are included and are based on specified items only. Two districts are given, one being the State of Illinois, outside of the Chicago Metropolitan district, and the other the State of Pennsylvania. Quotations follow:

PONDEROSA PINE

Selects S2 or 4S	1x8"		5/4 RW	
	Illinois	Pa.	Illinois	Pa.
C. Select RL.	$251.50	$252.95	$276.03	$273.77
D. Select RL.	215.50	218.78	254.43	248.80
Shop S2S	No. 1		No. 2	
5/4	154.66	162.35	123.17	133.13
6/4	152.80		121.56	136.76
Commons S2 or 4S	No. 2		No. 3	
1x8" RL	123.84		95.15	101.92
1x12" RL	131.58	132.18	102.05	98.83
4/4 #4 Common S2 or 4S RW&L				83.50

IDAHO WHITE PINE

Selects S2 or 4S	1x8"	6/4 RW
Choice (C) RL	269.25	
Quality (D) RL	236.25	254.75
Commons S2or4S	Colonial #1	Sterling #2
1x8" RL	176.25	153.05

SUGAR PINE

1x12" RL	196.25	203.25	161.86
Shops S2S	No. 1	No. 2	
5/4	165.17	169.50	122.46	136.50
6/4				
8/4	165.75	182.50	132.38	140.50

LARCH-DOUGLAS FIR

#1 Dimension 2 x 4	$102.50	$110.75
#1 Dimension 2 x 6		109.50

Log Prices

Following prices have been quoted F.O.B. rafted in the Willamette River:

No. 1, Fir Peelers, generally $110.00 occasionally to $120.00. No. 2 Peelers, generally $80.00. No. 3 Fir Peelers, $70.00 to $80.00.

Douglas Fir Saw Mill Logs—No. 1, $70.00; No. 2, $50.00-$55.00; No. 3 $40.00-$45.00.

Hemlock—Selected Peelers, $60.00.

Hemlock Saw Mill—Peelers and No. 1, $50.00; Hemlock No. 2 and No. 3, now $36.00 to $40.00.

Some peeler Fir at 80-100-120.

Some Hemlock at $40.00 Camp Run.

White Fir—Same as hemlock or $1.00 less. Noble Fir Peelers, $60.00 to $70.00, otherwise same as white fir.

Cedar—Shingle, $40.00-$45.00; lumber, $80.00-$90.00.

Spruce Peelers—No. 1, $90.00-$100.00; No. 2, $70.00-$80.00; No. 3, $60.00.

Spruce Saw Logs—Same as Douglas fir.

Spruce Pulp Logs—Same as Hemlock.

Douglas Fir Wood Logs—No. 1, $20.00; No. 2, $10.00.

Douglas Fir Prices

1x4 B and BVG Flooring	$170-175
1x6 C&Btr. Drop Siding	155-160
1x6 No. 1 K-B	83- 88
1x8	83- 88
1x10	83- 88
1x12	85- 90
No. 1 Common Timbers and Plank	
3x3 6-30	$ 90-$95
3x3 22-24	93- 98
3x3 26-32	101-106
3x10 6-20	82- 87
3x10 22-24	85- 90
3x10 26-32	90- 95
4x4 6-20	85- 90
4x4 22-24	88- 93
4x4 26-32	96-101
6x6 8-20	82- 87
6x6 22-30	85- 90
6x6 32-40	100-105
8x8 8-20	82- 87
8x8 22-30	85- 90
8x8 32-40	100-105
6x10, 8x10, 8-20	82- 87
6x10, 8x10, 22-30	85- 90
6x10, 8x10, 32-40	100-105
10x10, 12x12, 8-20	82- 87
10x10, 12x12, 22-30	85- 90
10x10, 12x12, 32-40	100-105
Douglas Fir Cross Ties	65- 70
No. 1 Dimension (Green)	
2x4 6-24	$ 73-$78
2x6 6-24	72- 77
2x8 6-24	72- 77
2x12 6-24	71- 76
Sel. Merch. (Green)	
1x4 6-20	$ 85-$90
1x8 6-20	95-100
1x12 6-20	100-105

Douglas Fir Plywood

1-4 inch basis	$110-$114

Southern Pine Prices

1x4 Std. VG Flg. PE...	$210.00	$195.00	$163.00
1x4 Std. FG Flg. PE...	170.00	160.00	140.00
5/4x4 Std. Ceiling	170.00	160.00	140.00
1x6 Std. Drop Siding..	191.00	181.00	138.00
	No. 1	No. 2	No. 3
1x6 Std. Boards & S/L.	143.00	84.00	74.00
1x8 Std. Boards & S/L	143.00	89.00	79.00
1x10 Std. Boards & S/L	148.00	89.00	79.00
1x12 Std. Boards & S/L	173.00	96.00	77.00

No. 1 Dimensions S4S

	12'	14'	16'	18'	20'
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2x 6 ...	91.00	92.00	93.00	102.00	104.00
2x 8 ...	96.00	94.00	94.00	102.00	104.00
2x10 ...	104.00	105.00	105.00	113.00	116.00
2x12 ...	110.00	110.00	110.00	121.00	126.00

No. 2 Dimensions S4S

2x 4 ...	88.00	89.00	91.00	101.00	101.00
2x 6 ...	84.00	85.00	86.00	95.00	97.00
2x 8 ...	87.00	85.00	85.00	93.00	95.00
2x10 ...	88.00	90.00	89.00	95.00	97.00
2x12 ...	86.00	86.00	86.00	95.00	103.00

No. 3 Dimension S4S

2x 4 ...	70.00	72.00	75.00	81.00	81.00
2x 6 ...	70.00	71.00	72.00	78.00	78.00
2x 8 ...	71.00	70.00	70.00	75.00	75.00
2x10 ...	67.00	70.00	67.00	72.00	74.00
2x12 ...	64.00	64.00	66.00	74.00	76.00

B. C. Log Prices

Douglas fir logs are levelling off, with standard logs still selling at $52.50 to $62.50 for No. 3's; $62.50 to $72.50 for No. 2's, and $72.50 to $82.50 for No. 1, according to C. D. Schultz & Co., Vancouver timber managers. Peeler logs are quoted at $75 to $85 for No. 3; $80 to $90 for No. 2, and $90 to $100 for No. 1. In cedar, shingle logs are being traded at $35 to $45 for No. 3; $45 to $55 for No. 2, and $60 to $70 for No. 1. In hemlock and balsam, log stocks in British Columbia are reported slightly down with prices now $50 to $57.50 for No. 3; $57.50 to $67.50 for No. 2, and $67.50 to $77.50 for No. 1. The lumber outlook in British Columbia, generally speaking, continues favorable, with the United Kingdom buying heavily again and some improvement reported from the Atlantic seaboard states. Production of logs has been curtailed owing to the extremely long hot, dry spell in the coastal forests.

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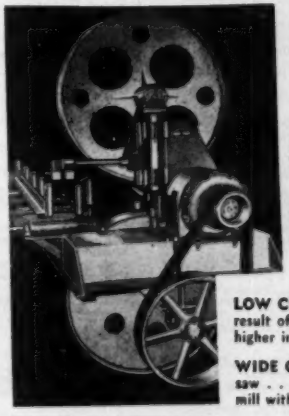

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(Title 39, United States Code, Section 233)

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1—new Diamond #35 roller bearing hog.
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1—new 24" Electric Drag Saw.
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New 60, 74, 78, 83 and 134 chain.
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15 steel chairs 6"x9" for 1" chain.
1—3-block 60" Carriage, Dbl. I-beam blocks, Power Set Works taper knees, 6 trucks, 12" steel V and flat wheels Timken Bearings
2—Allis 2-block 72" carriage, #4 Trout Set, steel frame, taper knees.
1—Log stop and Loader 5-15/16"x30 ft. shaft, 3 steel arms 16"x24" cyl.
1—Log stop and Loader 5-7/16x30 ft. 4 steel arms, 12x30 cylinder
1—Low down type steam nigger 10x60 cyl. 6x24 helper cylinder

EDGERS

1—New Wheland 7"x34" 3-saw roller bearing.
1—used P. L. Works 6"x42" 4-saw stub lever.
1—4-saw lath butter, 3 30" IT saws.
1—new 6"x54" 4-saw stub edger, ball bearings, 22" saws.
1—used 6-saw lath or cleat machine

STEAM FEEDS

1—5x4 twin feed.
1—new 5x6 SpeaD twin feed.
1—6x7 twin feed.
1—8x10 twin feed.
1—12"x36" shotgun feed.
1—4½x5 twin feed
1—14x18 P&H (Beck) twin feed direct, 48"x14" drum
1—12x18 P&H (Beck) twin feed direct, 36"x14" drum

RESAWS

1—Fay & Egan 30" circular resaw B. B. Arbor tilting rolls.
1—American 24" circular motor driven.
1—Cordesman 42" band resaw, 6" opening babbitt bearings 25 HP, motor V-belt drive.
1—Berlin #383 44" vertical resaw 4" blade, tilting rolls.
1—Mershon 54" LH vertical band resaw, tilting rolls. 8" opening, babbitt bearings, 40 HP motor.
1—American #4 40" band scroll and resaw, 8" blade, cap. 20" V, opening 6" ball bearing.
1—Mershon 66" vertical resaw, babbitt bearing RH.
1—Mershon 84" vertical resaw, babbitt bearing LH.
1—Yates V50 64" Vertical resaw, 8" blades, RH machine LH set works
1—new Trojan Circular Resaw, cap. 14"x17" opening, air Jam rolls tilt for bevel siding

PLANERS, SURFACERS AND MOULDERS, DBL. PROFILERS

1—#94 6"x9" 6-knife matcher.
1—#94 6-knife matcher, 6"x15".
1—Berlin #46 10x30 sq. head planer.
1—Yates 24"x36" sq. head sizer, belt drive.
1—8x4" motor drive moulder.
1—American 7" 4-side sq. head moulder.
1—IH & E 8" 4-side moulder.
1—American #44½ 30"x7 2-knife surfacer, sec., in feed rolls.
1—Berlin 6"x24" 2-knife surfacer, sec. infeed rolls.
1—Cordesman 8"x28" 2-knife surfacer, sec. infeed rolls.
1—American #7Ya-6x15 6-knife matcher dbl. profiler.
1—American #136 8x20 4-knife Matcher, with extras
1—Berlin #49 6x24 4-knife matcher, with extras

RIP SAWS

1—Madison #397 straight line rip saw, 15 HP 3600 RPM motor.
1—Greenlee self-feed rip saw, table 42"x89".
1—American #2 self-feed rip saw, cap. 6" belt drive.
1—Mershon #1 Band Rip, 44" wheels, 4" blade, 12" capacity

PLANER KNIFE AND SAW GRINDERS

1—new Dependable #99A 36" motor drive semi-automatic.
1—new Dependable #99A 36" motor drive, full automatic.
1—new #101A sidehead grinder, motor drive.
1—new #102A sidehead and profile grinder, motor drive.
1—Covel #130 LH 10" band saw grinder.
1—new 10" RH motor drive, band saw grinder.
1—Hanchett 12" RH band saw grinder.
1—Covel #90L 16" motor drive.
1—Covel #150 HR 16" BB arbor.
1—Covel #118 16" RH band saw grinders.
1—new Collis hand gummer, cap. to 40" motor drive.
1—automatic circ. saw grinder, cap. 60".
1—Covel #141B Blackmer hand cir. saw grinder, cap. 12" to 72".
1—Covel #56 aut. cir. saws, 12" to 72" and band saws to 16".
1—Covel new #46 small hand gummer 40".
1—Covel #130 12" LH Band Saw Grinder, motor drive
1—Covel #140 LH 14" Band Saw Grinder

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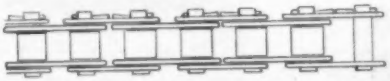

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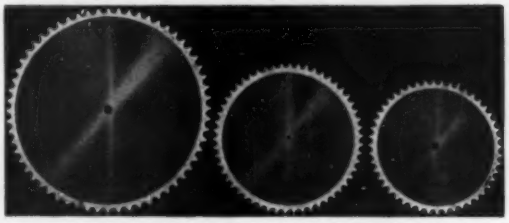

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4"x40" Edger—with live transfer chain and edger infeed jump roll 26 ft. two saw predetermined trimmer. 5 HP motorized saws, motor driven infeed table.
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Complete unloading hoist, gas engine drive A frame and rigging
40 HP Gas driven 4/ fire pump unit
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1—150 HP 720 R.P.M. Head rig motor new
1—50 HP 1800 R.P.M. edger motor new. (no entrance switches)
200 Ft. No. 82 new chain slab conveyor
Cost owners $57,000 w/new motors.
Sacrifice for $28,500. Or will sell less 150 and 50 HP motors $24,500
Hurry—This mill will not last long.

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1—Stetson Ross 6 x 15 four knife rd. hd. planer w/hoods blower and jointer.
1—Berlin No. 10-10"x20" sq. hd. planer
1—54" Cunderson 4-roll band resaw w/50 HP motor, starter, switch, infeed dead rolls, 3 HP gear motor driven out feed rolls.
1—10"x72" Allis Chalmers stut edger, divided rolls, air or steam lift cylinders and 11 saws.
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1—20' x 3—34" opening hd. blk. Am. carriage.
1—20' x 3—60" opening screw hd. block carriage
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Be sure to read the latest FOREST INDUSTRIES NEWS section in each issue of THE LUMBERMAN.

Power Saw and Loading Events at Celebration

A new entertainment feature at the recent annual Orofino, Idaho Celebration was the power saw contests. Delbert Roby with a McCulloch saw won the 7HP event in 47.6 seconds sawing a 30 inch log; Roby also won the 5HP event using a McCulloch saw on a 30 inch log. Albert Altmiller, using a McCulloch saw on a 24 inch log, won the 3HP event in 61 seconds.

Roby who hails from Kamiah was named the all-around Lumberjack. His winnings a first in chopping, a second in bucking, two firsts and a third in power saw bucking.

Another feature of the Celebration was the log loading event. Loading and unloading 32 foot logs with a giant Lima loader, the team handled the 32 foot yellow pine logs with ease and precision that aroused interest of all spectators.

FOR SALE

2-Filer & Stowell 8' Horizontal Resaws
1 Complete Double 8' Band Mill, electric driven

HAMILTON MACHINERY EXCHANGE
MENOMINEE, MICHIGAN

Link-Belt Wins Award on Its Annual Report

In the final ratings of the independent board of judges in the Financial World Survey of Annual Reports, Link-Belt Company was judged as having the best annual report of the material handling equipment category. The bronze "Oscar of Industry" trophy was presented to George P. Torrence, president of the company, at the Annual Awards Banquet in the Grand Ballroom of the Hotel Statler, New York, on October 29, 1951.

The "Cross Country" issue of the Twin Disc Clutch Company's, Production Road tells the interesting story of the travels of the Twin Disc sales engineer, who as the company's president, John H. Batten, says in a forword "comes about as close as any person to seeing the whole fantastic story of American industrial might and what makes it really throb, pulsate and burst into new levels of achievement." The sales engineer in this issue takes the reader into all sorts of industrial plants and activities including logging operations and lumber mills, where Twin disc clutches and hydraulic drives are providing efficient power transmission. For write to the Twin Disc Clutch Co., a copy of this interesting publication Racine, Wis., Rockford, Ill., or its branches at Dallas, Detroit, Los Angeles, Newark, New Orleans, Seattle, or Tulsa.

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2 Hyster Lumber Carriers
45 x 60 pkg.
Very good mechanically.
Each has tops and spare tire and wheel.

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All Equipment Remanufactured—
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2—Hyster RT-150 Lift Trucks----$6,500.00 Each
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408 HP, 200# WP Water Tube Steel Header Boilers (2), ASME, Perfect Condition. Hydrostatically tested for 300# by Hartford and approved. HRT's, 150 HP, 125-250# WP. Full stock, advise requirements. United Steel Products Co., Memphis, Tenn. Mail: P.O. Box 411. Phone 8-6509.

Good Machinery Buys

DONKEYS

1—8U 140 Skagit Yarder with 140 HP Waukesha engine, (3 drums)
1—8U 140 Skagit Loader with 135 HP Chrysler Industrial engine
1—2-drum Mundy American friction hoist

CRANES & CARRIERS

1—15 ton Browning hoist R.R. crane 60' boom, oil burner
1—25 ton P & H 36' span Bridge crane
2—Model 11 Ross Carriers, pneumatic tires
2—Model CP-7 Williamette carriers, 1935

USED MOTORS

1—100 HP 1200 RPM Allis
1—30 HP 1200 G.E. slip ring with controls
1—20 HP 1200 G. E. slip ring
1—15 HP 1200 G.E. slip ring
2—15 HP 1200 G.E. slip ring with grids
1—50 HP 900 U.S. ball bearing
2—30 HP 900 U.S. ball bearing
1—75 HP 900 RPM, 440 V. Westinghouse D.B.

REDUCERS

1—Worm gear 7½ HP capacity 750:1 ratio
1—Worm gear 5 HP capacity 1000:1 ratio

WELDERS

1—300 amp Lincoln driven by a 6 cylinder GMC engine
1—400 amp G.E. welder, Electric
1—150 amp Lincoln 220 V. upright
1—200 amp Lincoln 440 V. upright

GRINDERS

1—99A5-36 Dependable Knife grinder, new
1—#1 Gawley RH Band saw grinder
1—Hand gummer #46-B Covel
1—12 x 14 x 5 leveling block

SAWMILL EQUIPMENT

8" and 10" x 6' oscillating Hill Nigger
60" 4-block rack and pinion carriage Trout setworks
54" 3-block screw carriage AC set works
1—F & S head block 72"
1—4 x 9 Lewi Huston moulder
1—5-saw Lamb gang bolter
1—#60 Diamond hog babbitt bearing steel rotor, direct connected to 120 HP 680 RPM motor with starter, 440 V.

BOAT SPIKES

½ x 7 galv. ½ x 14 galv.
½ x 8 galv. ⅝ x 8 black
½ x 9 galv. ⅝ x 10 galv.

CHAIN

200'—#110 Box, new
400'—#138 Camel back, new
250'—#678 Link Belt, used

ROLL CASES

6—10 x 20 on 12" channel with roller chain
7—10 x 20 on 12" channel with roller chain
7—12 x 24 on 15" channel with miter gears

MISCELLANEOUS

7—Sumner standard shingle machines all electric, complete with saws and controls
5—Packing frames 16" and 18"
1—PSMD shingle reprem
1—135 HP a 1000 RPM LeRoi gas engine, stationary
2—Twin City gas engines out of N.W. cranes
1—10 x 10 Link reversing twin "Ideal" steam engine
30—4" E.H. Wheatley Gate Valves
1—30" gate valve
25,000'—1" black pipe, (very good)
1—Jarecki 2½ to 6" pipe machine
1—Williams 4" pipe machine
1—36" West side band saw
1—5 ton chain block, Hercules
1—Core gear and pinion
1—PM power saw 30" blade
1—Car hoist with 12" x 6' hydraulic cylinder
2—72" x 18' HRT boilers

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NEW STUDE. CHAMP. eng., complete with clutch.
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Special Low Prices on

248 GMC ENG., complete with 4-sp. transmission.
270 GMC Engines with Hydra. Trans. (something new). Ideal for Log Loaders.
S.R.K.R. Wauk. Engine complete.
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228 HP., D.F.X.E. Herc. Diesel Power Plant Comp Bargain.
450 RED. DIA. INT. eng., less clutch., str. & gen.
25-KW 110-220 A. C. gen. plant.
15-KW 110-220 A. C. gen. plant.
D4 CAT., only 209 hours, bargain.
Chry. Crown Marine Engines with 2½ to 1 Red. Gear—Like New.

Sale — Lift Trucks — Sale

LATE MODEL CLARK 6000-lb. fork lift trucks.
ROSS STRADDLE LUMBER CARRIERS, late models. Like new, space 55"x78", pkg. 46"x68".
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AT GENUINE SAVINGS

PLANERS

1 Rebuilt Yates-American No. A4 - 6x30. 6K Rd. head with feed table and 75 HP motor and starter.
1 Rebuilt Yates No. 91 - 6x20. 6K with ripping attachment. 75 HP motor and starter.
1 American No. 126 - 8x24. 6K with belts and blower hoods. Good condition.
1 Woods No. 110 - 6x12. 4K square head top and bottom. 6K Rd. ball bearing side heads with jointers, belts, blower hoods. 40 HP motor and starter.
1 Berlin No. 41 - 14x30 - 4K square head. Rebuilt.
1 Woods No. 10 - 12x30. 4K square head. Rebuilt.

MOULDERS

1 American - 6x8. 4 Head. Square 4K with belts. 25 HP motor and starter. Good condition.
1 Huston - 6x9. 4 Head. Round 4K. Rebuilt.
1 American - 6x12. 4 Head. Square 4K. Good condition.
1 Sash Sticker. 2 head with plow and boring attachment. 5 HP motor drive. Good condition.

AIR COMPRESSORS

1 Ingersoll Rand portable on 2 wheel pneumatic tired trailer, gas driven 100 cu. ft. at 100 pounds pressure.
1 Ingersoll Rand 160-foot gas driven portable on steel wheel cart.
1 Ingersoll Rand XB2, 15x9x12, 513 CFM 2 stage.
1 Ingersoll Rand Imperial Type 10. 17x10x14—Horizontal duplex 2 stage 677 CFPM.

NEED WIRE ROPE?
NEW PLOW STEEL WIRE ROPE

¼" - 6/19 HC Domestic.
⅛" - 6/25 HC Holland.
⅜" - 6/25 HC Improved Holland.
⅞" - 6/19 HC Domestic.
⅞" - 8/19 HC Domestic.
1" - 6/19 HC Domestic.
1" - 6/19 IWRC Improved Holland.

NEW OFFERING

1 Sinker Davis Self Feed Circular Rip Saw—Gang type.
1 Automatic Smooth End Trimmer. 24 ft.—11 saw.
1 Crescent 8x24 Single Surfacer.
1 Smith 8x24 Single Surfacer.
1 Fay & Egan No. 156, 7x24 Single Surfacer
5 Rebuilt Motorized Swing Saws.

Values of the Month

1 Turner No. R42—Tandem Twin Resaw. 42" motorized, almost new.

1 New Heaps Circular Resaw—capacity 16"x12", air set.

1 Rebuilt American No. 4 Circular Resaw—capacity 8x6.

1 Rebuilt American No. 6 Circular Resaw—capacity 8x12.

★ SPECIALS! ★
GOOD BUYS IN REBUILT MACHINERY AVAILABLE FROM OUR STOCK NOW

1 Bell Double End Mitre Saw with corner fluting attachment. Motorized 440 V. Capacity 96", 16" saws. Late type.
1 Mattison No. 55D—42" automatic shaping lathe V-belt drive. 15 HP motor and starter. Large stock heads and holders.
1 Mattison No. 228 Electric Moulder. Heavy duty 16"x6". 4 head with jointers. Blower hoods. Extra heads. Almost new.
1 New Tower One Man Trimmer. 2 saw 6' to 20'. Belt drive.
1 New Tower 5x42 Edgers. SKF bearings. 4—18" saws. RH belt drive.
1 Wheland 4x32—3 saw edger.
1 Amer. No. 4 Cir Resaw. Capacity 24" saw—8"x6".
1 Amer. No.6 Cir. Resaw. Capacity 32" saw—8"x12".
1 Sinker, Davis Self Feed Circular Ripsaw, Gang type.
1 American 32" Band Saw.
1 Davis and Wells 20" Band Saw.
1 Covel No. 130L - 12" Automatic Band Saw Sharpener.
1 Covel No. 150L - 16" Automatic Band Saw with modern rocker head.

ELECTRIC MOTORS

NEW STERLING IN STOCK:
Squirrel Cage - ½ to 20 HP.
Gearhead 1 HP. to 10 HP. Several speeds every size.
Speedtrol (variable speed). Factory shipment.
REBUILT:
½ HP. to 100 HP. - Almost all speeds every size.
REBUILT MOTORS AND REDUCERS:
5 HP. GE Motor Sumner gear 193 RPM.
7½ HP. GE Motor Sumner gear 193 RPM.
5 HP. GE Motor Wade gear 14 RPM.
5 HP. Westinghouse Motor Western gear 18 RPM.
7½ HP. GE Motor Sumner gear 23 RPM.
7½ HP. GE Motor Western gear 12 RPM with brake.
10 HP. Westinghouse Motor Western gear 18 RPM with brake.
7½ HP. GE Motor Open gear 25 RPM.

TRANSMISSION EQUIPMENT

New malleable chain in stock: No. 60, No. 71, No. 72, No. 82, No. 124, No. 139, No. 131, No. 138.
Good stock used chain in popular sizes.
All sizes refuse conveyor and log haul available.
Roller chain: New Atlas ⅜" to 2". Large stock of good used all sizes.
We can supply new or used: Pulleys, shafting sprockets, gears, belting, etc.
Long Link steel chain.

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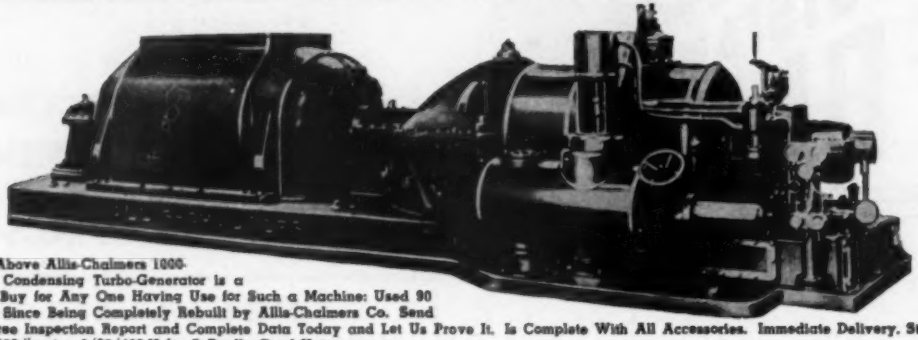

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1 Gerlinger Model 4MH-42" lumber carrier 1949 model.
1 Gerlinger Model PH662-6 ton lift truck.
3 Gerlinger Model 4MH-48" x 60" lumber carrier.

PLANERS & MOULDERS

1 Berlin #199, 6" x 19" with profile.
1 Woods 6" x 15" planer. #107C.
1 #4½ American 8" x 36" single surfacer.
1 American #7TA, 6" x 15" belt driven planer with feed table, motor and controls.
1 Woods #404C, 6" x 24", 6 knife planer with feed table.
2 24"—10 knife planer cylinders
1 Hamilton mechanical breakdown hoist.

MACHINE TOOLS

Lodge & Shipley Lathe, 21" swing, 10' bed, quick change, motorized.
Lodge & Shipley Lathe, 24" swing, 8' bed, quick change, motorized.
Reed Prentice Lathe 24" swing, 10' bed, geared head, quick change, steady rest, face plate, universal chuck, adapted for pump & coolant.
Lodge & Shipley Lathe, 18" swing, 8' bed, quick change, geared, 4 step cone, countershaft, tail stock, center rest, large 4 jaw chuck, smaller 3 jaw chuck.
American Lathe, 16" swing, 6' bed, quick change.
Hamilton Lathe, 14" swing, 6' bed, quick change, geared head.
American Lathe, 14" swing, 6' bed, quick change.
Hendey Lathe, 12" swing, 30" bed, quick change, taper attachment.
72" Bullard vertical boring mill, new table. Good condition.
72" x 16 ft. B. C. Lathe, Reeves drive, motorized crossfeed.
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Storm brake drum lathe with attachments.
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12" Smith & Mills Shaper.
85 ton horizontal, hydraulic press 48" between bars.
LeBlonde lathe, 24" swing, 14' bed, all attachments.
Ryerson lathe, 28" swing, 8' bed, quick change, motorized.
20" Whipp, back geared table vise, gear shift drive, shaper.
20" Cincinnati, back geared Shaper with countershaft & table vise, motorized.
3 Jones & Lamson 7A Turret Lathes with attachments.
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B-Line Buffer, 3 HP, 3 ph, 220 V, 3450 RPM, extended shafts.
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1 Warren 5 ft. Radial drill complete with 6 HP motor and drive unit
1 Prentice 4 ft. Radial drill—motorized
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Vico 14" drill press, 4 speed "V" belt drive.
2 Cincinnati No. 5 taper drill presses.
Keckley 200 ton Horizontal, Hydraulic press, 2 speed 5 HP 3 ph motor, 12" stroke, 72" between bars.
Fauco Bench type arbor press.

EDGERS

1 Portland Iron Works 5" x 48" RH 5 saw edger.
Peters 6" x 48" anti-fraction bearing hydraulic shift RH edger.
Allis-Chalmers 6" x 24" RH 2 saw pony edger.
6" x 30" right hand 3 saw edge, with anti-friction bearings.
4" x 24" right hand 4 saw edger with anti friction bearings.
Sumner 5" x 60" edger, reconditioned.
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Three 54" opening screw type head blocks with dogs.
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2—#15 Diamond hogs.
1—#25 Mitts & Merrill hog.
54" band headrig, new, without saws or power unit.
1 #35 Diamond Hog-anti-friction bearings.

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1 Gardner-Denver 300 cu. ft. water cooler, portable with 4 cyl. Buda Engine.
1 Schramm 360 cu. ft. portable.

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1 set tilting feed rolls for Mershon 54" resaw.
Berlin 54" vertical resaw—complete.
Mershon 60" right hand vertical band resaw. 18" opening.
1 New Pacific 54" resaw, v-belt drive, Lima 4 speed feed works.
1 Yates #281-42" band ripsaw.

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Fairbanks-Morse Type Y 200 HP, 300 RPM Vertical Diesel Engine.
Allis-Chalmers 20" x 20" twin direct drive carriage feed engine.
12" x 15" Twin Ball and Ball 60" x 16" flywheel.
12" x 15" Ames side crank, 60" x 13" flywheel.
6" x 8" side crank, 26" x 6" flywheel.
8" x 10" twin Erson & Brantingham carriage feed engine.
11" x 12" Willamette 3 drum hoist.
8¼ x 10" twin log haul engine, single drum.
7" x 9" geared carriage feed engine.
4½" x 5" twin Marion engine.
New Spee-D-Twin carriage feed engines.
1 Allis-Chalmers, 14"x15" twin steam feed engine with 18"x48" cable drum.

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1—used covel gang saw grinder
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1—new Armstrong 4 stretcher roll

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1—4" x 30" Portland table type
1—4" x 48" Sherman stub type

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1—300HP—514 RPM slip ring with starter
1—200HP—720 RPM sq. cg.
1—125HP—720 RPM sq. cg.
1—150HP—600 RPM slip ring
Several good used blowers

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150	600	720			1800	
100		720		1200	1800	
75			900	1200	1800	
50			900	1200	1800	
40		720		1200		3600
30			900	1200	1800	
25				1200	1800	
20			900	1200	1800	
15				1200	1800	3600
10			900	1200	1800	3600
7½			900	1200	1800	
5				1200	1800	
3				1200	1800	
2				1200	1800	
1			900	1200	1800	3600

GEARHEAD MOTORS

HP	RPM	RPM	RPM	RPM	RPM	RPM
1	45	68	100			
1½		68	100			
2	45	68	88	100	130	
3	30	45	68	100	530	
5	30	45	68	100	100	
7½			68	100		
10			63		414	
15	28	42	65			
20		42				

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HP	RPM	HP	RPM
		30	1750
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100	600	20	1750
75	1750	15	1750
50	600		

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6000 watt	40 KW
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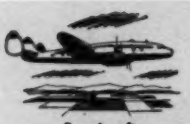

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